Yosemite National Park

National Park Service
U.S. Department of the Interior

Yosemite Lodge Area Redevelopment

Finding of No Significant Impact
Floodplain and Wetland Statement of Findings
February 2004

United States Department of the Interior

NATIONAL PARK SERVICE

Yosemite National Park
P.O. Box 577
Yosemite, California 95389

IN REPLY REFER TO:
A3823 (YOSE-PM)

Dear Friends of Yosemite National Park:

We are pleased to provide you with a copy of the Finding of No Significant Impact for the Yosemite Lodge Area Redevelopment Plan. The project area is located in Yosemite Valley, and includes a comprehensive redevelopment of the Yosemite Lodge area consistent with the *General Management Plan* and *Yosemite Valley Plan*.

This redevelopment plan includes several distinct project elements: the redevelopment of Yosemite Lodge, the redesign of Camp 4 walk-in campground, and the relocation of Northside Drive. The plan also includes development of the Indian Cultural Center within Yosemite Valley, which is being undertaken by the National Park Service in partnership with the American Indian Council of Mariposa County (the group that represents the Southern Sierra Miwuk). The distinct project elements have been collectively analyzed to assess the overall environmental impacts that would occur upon project implementation.

Please note that this packet contains Errata Sheets for the *Yosemite Lodge Area Redevelopment Environmental Assessment* and that these Errata Sheets should be kept with your copy of that document.

The National Park Service has determined that implementation of the Yosemite Lodge Area Redevelopment will not have a significant effect on the environment; therefore, an environmental impact statement will not be prepared.

We thank you for your comments regarding the project. Public participation is a key element in the environmental review process at Yosemite National Park. Your participation helps to ensure that the National Park Service fully understands and considers your values and concerns.

Sincerely,

Michael J. Tollefson
Superintendent

Enclosure (1)

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Table of Contents

Floodplain and Wetland Statement of Findings (continued)

List of Tables

List of Figures

Yosemite National Park

Finding of No Significant Impact

Background

This Finding of No Significant Impact (FONSI) documents the decision of the National Park Service to adopt the preferred alternative for the proposed Yosemite Lodge Area Redevelopment and the determination that no previously undisclosed significant impacts on the human environment are associated with that decision. In accordance with the *General Management Plan* and *Yosemite Valley Plan Record of Decision*, the National Park Service is undertaking a comprehensive redevelopment of the Yosemite Lodge area, including redevelopment of Yosemite Lodge, redesign of Camp 4 walk-in campground, and relocation of Northside Drive. In addition, the National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) is developing the Indian Cultural Center.

In accordance with the *General Management Plan* and a 1997 agreement, the National Park Service, in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation), is undertaking the planning, design, and compliance necessary to establish the Indian Cultural Center at the site of the last historically occupied American Indian village in Yosemite Valley. The Indian Cultural Center will provide a place for the American Indian Council of Mariposa County to continue traditions in Yosemite Valley and to enhance the meaning and sacred nature of Yosemite, as identified in the *General Management Plan.* The American Indian Council of Mariposa County will be responsible for the construction and operation of the Indian Cultural Center and for conducting cultural and educational activities at the center.

At Yosemite Lodge, the *Final Yosemite Valley Plan* and its *Supplemental Environmental Impact Statement* (referred to hereafter as the *Yosemite Valley Plan*) called for the provision of 251 lodging units and overnight parking spaces at Yosemite Lodge and the relocation of Northside Drive south of the Lodge to reduce conflicts between vehicles and pedestrians and to provide safer pedestrian access between the Lodge and the Lower Yosemite Fall area. The *Yosemite Valley Plan* called for the expansion and improvement of the campground at Camp 4 as part of an effort to relocate campgrounds outside of highly valued natural resource areas, the Merced River floodplain, and rockfall zones. The *Yosemite Valley Plan* also identified the removal of the five sites west of the intermittent creek at the western end of Camp 4 to provide a buffer for the proposed Indian Cultural Center.

The *Yosemite Valley Plan* identified and analyzed the Yosemite Lodge Area Redevelopment at a programmatic level, with the exception of the Indian Cultural Center, which was analyzed as a cumulative project. However, as indicated in the *Yosemite Valley Plan,* as individual actions are implemented, the National Park Service would, in certain circumstances, complete additional

National Environmental Policy Act compliance. The *Yosemite Lodge Area Redevelopment Environmental Assessment* is tiered from the *Yosemite Valley Plan* and analyzes the environmental impacts of the project alternatives at a site-specific level of detail.

Purpose and Need

The purpose of the Yosemite Lodge Area Redevelopment is to implement the actions called for in the *General Management Plan* and *Yosemite Valley Plan* for the project area. The specific purposes of the Yosemite Lodge Area Redevelopment reflect the purposes of the *Yosemite Valley Plan* to:

- Restore, protect, and enhance the resources of Yosemite Valley by:
  - Improving connections between Yosemite Lodge and the natural resources of Yosemite Valley, including enhancing connections between interior spaces and the outdoors
  - Siting lodging and camping facilities outside of the 100-year floodplain, River Protection Overlay, and rockfall zone
  - Designing Camp 4 campsites to fit within the natural landscape
  - Providing a traditional tribal presence for the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) to continue their traditions in Yosemite Valley and to enhance the meaning and sacred nature of Yosemite, as identified in the *General Management Plan*
- Provide opportunities for high-quality, resource-based visitor experiences by:
  - Changing the character of Yosemite Lodge from a motel-type experience to one more connected to a national park lodge experience and Yosemite Valley
  - Providing more economy lodging and campsites in Yosemite Valley
  - Expanding camping opportunities in Yosemite Valley
  - Improving wayfinding on the project site, including to the Yosemite Falls trailhead
- Reduce traffic congestion by:
  - Improving the vehicle and pedestrian interface between Yosemite Lodge and Lower Yosemite Fall
- Provide effective park operations to meet the mission of the National Park Service by:
  - Improving existing maintenance and common facilities and utilities at Yosemite Lodge and Camp 4
  - Providing adequate parking for Yosemite Lodge and Camp 4 guests consistent with the *Yosemite Valley Plan*

The need for the Yosemite Lodge Area Redevelopment parallels the need for the *Yosemite Valley Plan* to provide improved facilities and services for people who visit Yosemite Valley. Improved facilities and services are needed to:

- Replace some of the overnight accommodations at Yosemite Lodge that were lost during the 1997 flood and remove some lodging units that remain within the 100-year floodplain
- Replace some of the campsites in Yosemite Valley that were lost in the 1997 flood

- Provide a national park lodge experience at Yosemite Lodge instead of the existing motel-type experience
- Reduce traffic congestion on Northside Drive in the vicinity of Yosemite Lodge and Lower Yosemite Fall and improve safety for pedestrians and bicyclists crossing Northside Drive between the Lodge and Lower Yosemite Fall area
- Provide for a traditional tribal presence in Yosemite Valley

The Yosemite Lodge Area Redevelopment was developed to achieve these goals. A complete description of the plan and its environmental consequences are contained in the *Yosemite Lodge Area Redevelopment Environmental Assessment*.

Selected Action and Alternatives Considered or Analyzed

The *Yosemite Lodge Area Redevelopment Environmental Assessment* analyzed three alternatives, Alternative 1: No Action; Alternative 2: Preferred Alternative; and Alternative 3. These alternatives were developed by the National Park Service based on the project purpose and need, issues raised during scoping, and other public comment. The *Yosemite Lodge Area Redevelopment Environmental Assessment* disclosed the potential environmental consequences that may result from implementation of each alternative. Comments received during the public review of the *Yosemite Lodge Area Redevelopment Environmental Assessment* were considered throughout the decision-making process.

Alternative 1: No Action Alternative

The No Action Alternative maintains the status quo for the Yosemite Lodge Area Redevelopment site. It provides a baseline from which to compare the action alternatives, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. This no action concept follows the guidance of the Council on Environmental Quality, which describes the No Action Alternative as representing no change from the existing management direction or level of management intensity.

Under the No Action Alternative, the Yosemite Lodge Area Redevelopment site would remain in its existing condition, with 245 lodging units and 464 vehicle and 15 overnight bus parking spaces at Yosemite Lodge and 37 campsites and 111 vehicle parking spaces at Camp 4. Necessary maintenance and repairs would continue, but no major undertakings (e.g., removal of existing buildings or construction of new buildings) would occur.

The No Action Alternative would not provide the proposed new facilities and restoration activities identified in the *Yosemite Valley Plan*, and the proposed Indian Cultural Center would not be developed. This would adversely affect the National Park Service purpose and need to restore, protect, and enhance the resources of Yosemite Valley; provide opportunities for high-quality, resource-based visitor experiences; reduce traffic congestion; provide effective park operations to meet the mission of the National Park Service; and provide improved facilities and services for people who visit Yosemite Valley. The No Action Alternative would limit the park's ability to implement actions called for in the *Yosemite Valley Plan*.

Selected Alternative

The Selected Alternative will implement approved *Yosemite Valley Plan* actions for the Yosemite Lodge Area Redevelopment, including providing 251 lodging units and 251 overnight vehicle parking spaces at Yosemite Lodge. In addition, the National Park Service will provide 20 parking spaces for early and late shift employees, 15 parking spaces for maintenance vehicles, an appropriate number of disabled-access parking spaces, and 75 overlap parking spaces for former overnight guests, because some guests continue to park their cars at the Lodge and tour Yosemite Valley after they check out of their rooms (overnight parking will not be allowed in these spaces). At Yosemite Lodge, the National Park Service will also provide 40 loading/unloading temporary parking spaces for use by Yosemite Lodge guests while registering for their rooms or carrying personal belongings to their lodging units. The loading/unloading spaces near the lodging units will be designed to make the transport of personal belongings to lodging rooms more convenient and to encourage visitors to remove all items from their vehicles that could attract bears, consistent with the park's bear management guidelines. Overnight parking will not be allowed in the loading/unloading parking spaces. Approximately 15 overnight tour bus parking spaces would be provided at Yosemite Lodge.

The Selected Alternative will provide 65 campsites and 195 parking spaces at Camp 4, relocate Northside Drive south of the Lodge, and convert existing Northside Drive to a multi-use paved trail in the vicinity of Yosemite Lodge. Consistent with the *General Management Plan*, the National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) will develop the Indian Cultural Center at the site of the last-occupied Indian village in Yosemite Valley, west of Camp 4. The Selected Alternative was not changed or modified based on public comment from the preferred alternative described in the environmental assessment.

Yosemite Lodge

The layout of the Lodge site under the Selected Alternative will group together lodging units of similar types and will feature centralized parking. The one-story cabin units will be clustered in the center of the Lodge site, and the two-story cottages will be interspersed with existing two-story buildings. The National Park Service will provide two small-scale viewing plazas along the proposed promenade, and the amphitheater will be relocated and the capacity expanded to accommodate 300 to 350 individuals.

Camp 4

At Camp 4, the Selected Alternative will provide a free-standing climbing display building, a cooking pavilion, gear storage lockers, and shared fire rings. The west portion of Camp 4 will feature a renovated restroom building. A new restroom building will be located in the eastern area of Camp 4, and a new restroom and shower building will be located near Camp 4 parking.

Indian Cultural Center

The National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) will develop the Indian Cultural Center at the site of the last-occupied American Indian village in Yosemite Valley and return to the site the last remaining cabin from the historic village for adaptive reuse. The Indian Cultural Center will include a ceremonial roundhouse, sweatlodge, 15 cedar-bark umachas (houses), a community building, and

shade structures. The Indian Cultural Center will provide opportunities for cultural continuity in Yosemite Valley.

Northside Drive

Northside Drive will be rerouted around the south side of Yosemite Lodge to reduce conflicts between vehicles and pedestrians on Northside Drive and to provide safer pedestrian access between the Lodge and Lower Yosemite Fall. The Selected Alternative reroutes Northside Drive into the Merced River 100-year floodplain. Realigned Northside Drive will continue to cross Yosemite Creek at the historic Yosemite Creek Bridge. West of Yosemite Creek Bridge, Northside Drive will be routed through a roundabout to direct traffic south of the Lodge site.

Restoration and Revegetation

Three areas on the Yosemite Lodge Area Redevelopment site will be restored to approximate natural conditions, including the area between the proposed realignment of Northside Drive at Yosemite Lodge and the Merced River (the site of former Yosemite Lodge cabins, Pine cottage, and employee housing), the area between the cabins and parking area on the Lodge site, and an area between Camp 4 and the Indian Cultural Center. Approximately 37.89 acres will be restored to natural conditions under the Selected Alternative. The restoration effort will remove the revetment and diversion dam in the overflow channels near Yosemite Creek to restore overland flow across the Merced River floodplain. The landscape of the Yosemite Lodge Area Redevelopment site will be revegetated based upon the principles described in the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge*. Existing and historic vegetation communities will be re-established and enhanced within the project area. The site design will provide communal outdoor spaces that encourage visitors to experience the out-of-doors.

Alternative 3

Alternative 3 would implement approved *Yosemite Valley Plan* actions for the Yosemite Lodge Area Redevelopment, including providing 251 lodging units and corresponding overnight parking spaces at Yosemite Lodge, providing 65 campsites and 195 parking spaces at Camp 4, relocating Northside Drive south of the Lodge, and converting existing Northside Drive to a multi-use paved trail in the Yosemite Lodge area. Consistent with the *General Management Plan*, the National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) would develop the Indian Cultural Center at the site of the last-occupied American Indian village in Yosemite Valley, west of Camp 4.

The relocation of Northside Drive, development of the Indian Cultural Center, and revegetation activities would be the same as proposed under the Selected Alternative. Approximately 37.31 acres would be restored under this alternative. Alternative 3 differs from the Selected Alternative primarily in Lodge site layout and the provision and location of Lodge and Camp 4 community facilities.

Yosemite Lodge

Under Alternative 3, new one- and two-story buildings would be interspersed throughout the Lodge site. Alternative 3 would feature a remote parking configuration, with the largest Lodge parking lot located at the western end of the site.

Alternative 3 would provide one large-scale viewing plaza along the proposed promenade. The amphitheater would be renovated in its current location and would retain its existing capacity (accommodating 150 to 200 individuals). Alternative 3 would provide changeable interior display space at the Lodge instead of a climbing display building at Camp 4, as proposed under the Selected Alternative.

Camp 4

Individual fire rings would be provided at Camp 4. The west portion of Camp 4 would feature a renovated restroom building. New restroom and shower buildings would be located near the Camp 4 parking lot and in the eastern area of the campground.

Actions Considered But Dismissed

For the Yosemite Lodge Area Redevelopment, a reasonable range of alternatives was considered in the *Yosemite Valley Plan*. It was not the objective of the *Yosemite Lodge Area Redevelopment Environmental Assessment* to revisit the range of alternatives in the *Yosemite Valley Plan* for the project area. During the Yosemite Lodge Area Redevelopment planning process, alternative actions were eliminated from detailed study for any one or a combination of the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area
- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley
- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused
- Is not technically or economically feasible

Those alternative actions considered but eliminated from detailed study are described below.

Short-term Maximization of Lodging Units During Project Construction

The National Park Service considered maximizing the number of lodging units at Yosemite Lodge during project construction in response to public requests to increase the number of lodging units at Yosemite Lodge. Under this action, the 128 existing lodging units planned for demolition would not be removed until the end of the construction period, resulting in a temporary increase of lodging units. This alternative action was considered but dismissed for the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area. As approved in the *Yosemite Valley Plan*, the ultimate buildout for Yosemite Lodge is specified as 251 lodging units.
- Is not technically or economically feasible. Temporarily maximizing the number of lodging units was not technically feasible due to the site constraints associated with project construction. The area occupied by the existing lodging units slated for demolition was needed early in the construction phasing process so that Northside Drive could be relocated.

Provide Lodge Guest Parking near Aspen, Dogwood, and Tamarack Lodging Units

The National Park Service considered providing Lodge guest parking near the Aspen, Dogwood, and Tamarack lodging units. This alternative action was considered but dismissed for the following reasons:

- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. Providing guest parking near the Aspen, Dogwood, and Tamarack lodging units would have required an additional roadway accessing Northside Drive west of the proposed roundabout. This option was rejected due to the reductions in traffic level of service on Northside Drive associated with this additional access roadway.

Provide Permanent Lodge Guest Parking near Cottonwood and Elderberry Lodging Units

The National Park Service considered providing permanent Lodge guest parking near the Cottonwood and Elderberry lodging units. This alternative action was considered but dismissed for the following reasons:

- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. Providing permanent guest parking near the Cottonwood and Elderberry lodging units was dismissed because placing permanent parking spaces along the northeastern perimeter of the Lodge site would have detracted from the pedestrian focus. The National Park Service decided to avoid placing permanent parking along the new multi-use paved trail in this location, and also avoid the extensive tree removal that would be required in this area to accommodate a parking lot.

Provide Subterranean Parking Structure at Yosemite Lodge Site

In an effort to reduce the size of the footprint required for Lodge guest parking, the National Park Service considered developing a subterranean parking structure at the Yosemite Lodge site. This alternative action was considered but dismissed for the following reasons:

- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. The design of the parking structure would require considerable interior space for access ramps and circulation roadways and would not substantially reduce the footprint of the parking area on the Lodge site.

Consolidate Camp 4 Campsites

The National Park Service considered consolidating 65 Camp 4 campsites in the western end of Camp 4 to reduce the developed footprint of the campground. This alternative action was considered but dismissed for the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area. The approved *Yosemite Valley Plan* called for utilizing the eastern portion of the Camp 4 campground when it identified increasing the capacity of the campground from 37 to 65 campsites.
- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Consolidating the 65 campsites into half the space identified in the *Yosemite Valley Plan* would result in increased campsite densities that would adversely affect the overall camping experience.

Relocate Search and Rescue Site

The National Park Service considered relocating the search and rescue site from the western end of Camp 4 to a location near the Camp 4 parking lot. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Relocating the search and rescue site would have unacceptable operational impacts. Relocating the search and rescue site near the parking lot would place the volunteers near higher activity areas, which is not conducive to rest and recuperation after a search and rescue mission.

Provide Propane Group Campfires

The National Park Service considered providing propane group campfires at Camp 4 to reduce air quality impacts associated with wood fires. This alternative action was considered but dismissed for the following reasons:

- Is not technically or economically feasible. Propane group campfires would be cost-prohibitive with respect to installation and maintenance.

Provide Dispersed Gear Storage Lockers Throughout Camp 4

The National Park Service considered providing up to 65 gear storage lockers throughout the Camp 4 area. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Dispersing up to 65 gear storage lockers throughout the Camp 4 area would substantially increase the built features scattered throughout the site and would create visual intrusions into the natural Camp 4 landscape.
- Is not technically or economically feasible. Dispersed gear storage lockers would be more difficult to maintain and monitor for security purposes than centralized gear storage lockers, as proposed under the Selected Alternative.

Provide Shuttle Bus Stop at Indian Cultural Center

The National Park Service considered providing a shuttle bus stop at the Indian Cultural Center. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Providing a shuttle bus stop at the Indian Cultural Center would have unacceptable cultural impacts, as it would disrupt the semiprivate nature of the facility during religious ceremonies. In addition, provision of a shuttle bus stop at the Indian Cultural Center is not necessary, because the Camp 4 shuttle bus stop would be located within 1,000 feet of the Indian Cultural Center.

Do Not Relocate Northside Drive

During the public scoping process for this environmental assessment, it was suggested that Northside Drive not be relocated south of the Lodge, as identified in the *Yosemite Valley Plan*. This alternative action was considered but dismissed for the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area. As approved in the *Yosemite Valley Plan*, the current alignment of Northside Drive would be relocated south of the Lodge to reduce conflicts between vehicles and pedestrians and to provide safer pedestrian access between the Lodge and Lower Yosemite Fall area.
- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. If Northside Drive were not relocated, project goals to reduce traffic

congestion by improving the vehicle and pedestrian interface between Yosemite Lodge and Lower Yosemite Fall would not be met.

Terminate Northside Drive at Yosemite Lodge Site

The National Park Service considered including in the Yosemite Lodge Area Redevelopment the termination of Northside Drive at Yosemite Lodge, as identified in the *Yosemite Valley Plan*. This alternative action was considered but dismissed for the following reasons:

- Is not technically or economically feasible. The termination of Northside Drive is identified in the *Yosemite Valley Plan*, and the National Park Service intends to terminate Northside Drive at Yosemite Lodge as part of the traveler information and traffic management system planning effort. The National Park Service decided that including the termination of Northside Drive at the Lodge site as part of the Yosemite Lodge Area Redevelopment project was technically infeasible. The termination of Northside Drive is closely tied with the larger Yosemite Valley transportation planning issues, including consolidating day-visitor parking in Yosemite Valley and three out-of-Valley parking areas, expanding shuttle bus operation, and making Southside Drive a two-way road. The traveler information and traffic management system project identified in the *Yosemite Valley Plan* will address these Valleywide transportation planning issues, and the termination of Northside Drive at Yosemite Lodge will be included among them.

Construct a New Motor Vehicle Bridge Across Yosemite Creek and Remove the Yosemite Creek Pedestrian/Bicycle Bridge

The National Park Service considered including in the Yosemite Lodge Area Redevelopment the construction of a new motor vehicle bridge across Yosemite Creek and the removal of the Yosemite Creek Pedestrian/Bicycle Bridge, as identified in the *Yosemite Valley Plan*. This alternative action was considered but dismissed for the following reasons:

- The National Park Service received new information regarding the presence of an American Indian traditional use site east of Yosemite Creek that would be affected by the proposed bridge roadway approach. The National Park Service determined that additional study was needed to ascertain the significance of the traditional gathering site and is currently conducting a Valleywide traditional use study. Northside Drive would be safely realigned through the inclusion of a roundabout on the west side of Yosemite Creek. In the absence of a new bridge across Yosemite Creek, the Yosemite Creek Pedestrian/Bicycle Bridge continued to be needed to convey pedestrians and bicyclists across the creek in this area. The National Park Service will determine whether construction of a new bridge across Yosemite Creek and removal of the Yosemite Creek Pedestrian/Bicycle Bridge is appropriate as part of the traveler information and traffic management system planning effort.

Install the Propane Tank Farm Underground

The National Park Service considered installing the propane tank farms underground to avoid adverse scenic impacts associated with views of the tanks. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. The National Park Service maintenance division indicated that underground propane tanks are considerably more difficult to maintain.

- Is not technically or economically feasible. The installation of below-ground propane tanks would be substantially more expensive than above-ground propane tanks.

Environmentally Preferred Alternative

The environmentally preferred alternative is determined by applying criteria identified in Section 101 of the National Environmental Policy Act (NEPA) to each alternative considered. In accordance with NEPA, the environmentally preferred alternative will best: (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice; (5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The National Park Service has considered the alternatives in this analysis in accordance with NEPA and Council on Environmental Quality regulations (Section 1505.2) and has determined that the Selected Alternative (Alternative 2) and Alternative 3 as presented in the *Yosemite Lodge Area Redevelopment Environmental Assessment*, are environmentally preferable based on their furtherance of the following National Environmental Policy Act goals as evaluated below. The Selected Alternative and Alternative 3 have small differences in their environmental impacts on natural and cultural resources, however, on balance both alternatives are considered environmentally preferable.

- **NEPA Section 101 Requirement 1.** "Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations."

The Selected Alternative and Alternative 3 will best fulfill the responsibilities of each generation as trustee of the environment for succeeding generations by restoring to approximate natural conditions 37.89 acres and 37.31 acres, respectively, of the Yosemite Lodge Area Redevelopment site largely within the Merced River 100-year floodplain and revegetating the rest of the project area using an applied ecological approach to revegetation. Alternative 1 would not involve restoration or revegetation activities, and would not result in the same level of environmental protection and restoration of natural resources as the Selected Alternative and Alternative 3. In addition, Alternative 1 would not fulfill the purpose of and need for the project.

The Selected Alternative and Alternative 3 will place realigned Northside Drive and some new parking areas within the Merced River 100-year floodplain. Although Northside Drive would not be in the 100-year floodplain under Alternative 1, many other Lodge facilities would continue to be in the 100-year floodplain, including four motel-type buildings (Maple, Alder, Hemlock, and Juniper), an employee Wellness Center, Yosemite Lodge housekeeping facilities and several small structures near Tamarack Cottage.

- **NEPA Section 101 Requirement 2.** "Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings."

The Selected Alternative and Alternative 3 will best assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings by redesigning Yosemite Lodge to refocus visitors' lodging experience from motel-like to one more connected with and unique to Yosemite National Park, and by redesigning Camp 4 to conform to the natural landscape. The Selected Alternative and Alternative 3 will provide new opportunities to enjoy scenic views through the development of viewing plazas on the promenade. These alternatives will remedy vehicle and pedestrian conflicts on Northside Drive between Yosemite Lodge and the Lower Yosemite Fall area. The Selected Alternative and Alternative 3 will relocate the Camp 4 search and rescue sites outside the base of talus zone. Alternative 1 would not fulfill goal 2 because the alternative would not assure safe surroundings; vehicle and pedestrian conflicts on Northside Drive between Yosemite Lodge and the Lower Yosemite Fall area would not be remedied, and portions of Camp 4 would continue to be located within the base of talus zone.

- **NEPA Section 101 Requirement 3.** "Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences."

The Selected Alternative and Alternative 3 will fulfill goal 3 of the national environmental policy goals by reducing risks to public health and safety by removing structures (i.e., Alder, Hemlock, Juniper, and Maple) from the Merced River floodplain, removing the traffic and pedestrian conflict on Northside Drive between Yosemite Lodge and the Lower Yosemite Fall area, relocating the search and rescue sites outside the base of talus zone, and constructing new facilities that comply with current building standards. In addition, both alternatives will develop the Indian Cultural Center at the site of the last-occupied American Indian village in Yosemite Valley.

The Selected Alternative also will provide a cooking pavilion at Camp 4, a climbing display building to highlight the importance of Camp 4's climbing history, as well as an expanded amphitheater on the Lodge site. Alternative 3 would provide an interior interpretive display space at Yosemite Lodge for changing informational exhibits and would renovate the existing amphitheater at Yosemite Lodge. These actions would provide a range of beneficial uses in the project area consistent with goal 3. Alternative 1 would be least effective in attaining goal 3, as described in Section 101, in that it would have the narrowest range of beneficial uses that could occur without degradation of natural and cultural resources in the project area.

- **NEPA Section 101 Requirement 4.** "Preserve important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice."

The Selected Alternative and Alternative 3 will fulfill goal 4 through revegetation and restoration activities, which include removing a diversion dam and revetments in the overflow channels near Yosemite Creek. Removal of these structures will restore natural flow in this area of the creek and return the Merced River 100-year floodplain to near-natural, free-flow conditions (with the exception of placement of realigned Northside Drive and new parking areas in the 100-year floodplain). In addition, both alternatives will implement measures to reduce adverse effects on natural and cultural resources related to construction and operation of the facilities (e.g., mitigation measures identified in table 1-1, Impact/Mitigation Matrix), as required under goal 4 of the national environmental policy goals. Under the Selected Alternative, cultural resources will be

managed in accordance with the 1999 Programmatic Agreement. Under Alternative 3, impacts to one archeological site would be reduced compared to the Selected Alternative. Because of existing natural resource impacts that would not be remedied, Alternative 1 does not best fulfill goal 4. Although Alternative 1 would include the least change to cultural resources, it would not provide opportunities for cultural continuity, since the National Park Service in partnership with the American Indian Council of Mariposa County would not build the Indian Cultural Center.

- **NEPA Section 101 Requirement 5.** "Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities."

The Selected Alternative and Alternative 3 fulfill goal 5 by increasing the number of campsites, modestly increasing the number of lodging units, and developing an Indian Cultural Center, while also locating such facilities outside the *Merced Wild and Scenic River Comprehensive Management Plan* (Merced River Plan) River Protection Overlay and 100-year floodplain of the Merced River as well as locating visitor overnight facilities outside the base of talus zone. Both alternatives incorporate revegetation and restoration activities, which include removing a diversion dam and revetments in the overflow channels near Yosemite Creek restoring natural flow in this area of the creek and return the Merced River 100-year floodplain to near-natural, free-flow conditions (with the exception of placement of realigned Northside Drive and new parking areas in the 100-year floodplain). These resource enhancements will achieve a balance between population and resource use, since the restoration activities will occur adjacent to Yosemite Lodge, which is among the most intensely developed sites in Yosemite Valley. Although existing patterns of visitor use would continue under Alternative 1, traffic congestion and existing impacts on floodplains, visitor experience, and scenic resources in the project area would not be remedied.

- **NEPA Section 101 Requirement 6.** "Enhance the quality of renewable resources and approaching the maximum attainable recycling of depletable resources."

The Selected Alternative and Alternative 3 will enhance the quality of renewable resources and approach maximum attainable recycling of depletable resources by implementing sustainable technologies designed to minimize impacts on natural resources, as required by the National Park Service's *Guiding Principles of Sustainable Design*. Sustainable principles and technologies incorporated into this alternative include use of recycled materials and installation of energy- and water-efficient features and utilities. Alternative 1 would retain existing technologies and utility infrastructure.

In conclusion, upon full consideration of the elements of Section 101 of NEPA, the Selected Alternative and Alternative 3 represent the environmentally preferable alternatives for the Yosemite Lodge Area Redevelopment. After review of potential resource and visitor impacts and developing mitigation for impacts to natural and cultural resources, the Selected Alternative and Alternative 3 attain the widest range of beneficial uses of the environment achieving a balance between population and resource use, while minimizing environmental impacts on natural and cultural resources and assuring safe, healthful, productive, and aesthetically and culturally pleasing surroundings.

Why the Selected Alternative Will Not Have a Significant Effect on the Human Environment

The National Park Service analyzed the significance criteria provided in the Council on Environmental Quality's NEPA regulations (Section 1508.27) to determine if the Selected Alternative would have a previously undisclosed significant adverse effect on the human environment. The Selected Alternative results in improvements to visitor serving facilities in the Yosemite Lodge area as directed by the *Yosemite Valley Plan* and its *Record of Decision.* Improvements include relocating lodging units outside the Merced River 100-year floodplain, adding 6 lodging units to partially replace some of the overnight accommodations at the Lodge that were lost during the 1997 flood, improving pedestrian and vehicle circulation at the Lodge site, expanding Camp 4 and improving camping-related facilities, developing a climbing display building, relocating the search and rescue site outside the base of the talus zone, developing the Indian Cultural Center, relocating Northside Drive south of the Lodge site to improve the vehicle and pedestrian interface between the Lodge and Yosemite Falls, and restoring 37.89 acres of the Yosemite Lodge area to approximate natural conditions. Although there will be short- and long-term but temporary construction-related adverse effects associated with construction of the proposed facilities, the long-term ecological and visitor experience benefits of the Selected Alternative are expected to more than compensate for the adverse effects of construction, as described in the resource topic discussion below. The Selected Alternative will result in adverse environmental impacts associated with construction-related noise. These impacts will occur intermittently during periods of intensive construction. These noise impacts were analyzed and disclosed in the *Final Yosemite Valley Plan* and its *Supplemental Environmental Impact Statement* from which the *Yosemite Lodge Area Redevelopment Environmental Assessment* is tiered.

Public health and safety would be protected under the Selected Alternative. The National Park Service would relocate lodging units outside the Merced River 100-year floodplain and search and rescue sites outside the base of talus zone. Traffic control and visitor protection measures will be employed to protect public health and safety during construction activity (see table 1-1, Impact/Mitigation Matrix).

There are unique characteristics in the Yosemite Lodge area, as discussed in Chapter III, Affected Environment, of the *Yosemite Lodge Area Redevelopment Environmental Assessment*. The Selected Alternative will not have significant adverse effects on these unique characteristics as described in discussed in Chapter IV, Environmental Consequences, of the *Yosemite Lodge Area Redevelopment Environmental Assessment*.

There has been extensive public involvement on this project. The Yosemite Lodge Area Redevelopment was first addressed during the development of the *Yosemite Valley Plan* and its *Supplemental Environmental Impact Statement*. The National Park Service also conducted extensive public outreach for the *Yosemite Lodge Area Redevelopment Environmental Assessment* through a formal public scoping period and public scoping meeting, a 30-day public review period and accompanying Public Open House, as well as approximately monthly informal Public Open Houses (from June 2002 through October 2003) to disseminate information and collect informal written comments on the Yosemite Lodge Area Redevelopment and other Yosemite projects.

The environmental impacts of the Yosemite Lodge Area Redevelopment are not highly uncertain nor does the Selected Alternative involve unique or unknown risks. No elements of precedence for future actions with significant effects have been identified, and implementation of the Selected Alternative will comply with all applicable federal, state, and local environmental protection laws.

Geology, Geologic Hazards, and Soils

Under the Selected Alternative, soil degradation associated with construction activities will occur through each project phase and will result in a local, short-term, moderate, adverse impact. As identified in table 1-1, Impact/Mitigation Matrix, standard mitigation including erosion controls and native foliage protection will reduce the construction-related impacts to a negligible to minor intensity. Overall, the Selected Alternative will have a local, long-term, negligible, beneficial impact. The beneficial impacts of the Selected Alternative associated with restoration of highly valued soil resources in the Merced River 100-year floodplain, other restoration and revegetation activities, improved seismic safety associated with new building construction, and relocation of essential facilities outside the base of talus zone will offset the adverse effects associated with construction impacts, hazards from unavoidable seismic ground shaking, and continued placement of some facilities within the base of talus and shadow line zones.

Floodplains and Water Resources

Stormwater runoff from construction sites will result in a moderate adverse impact to surface water quality. Implementation of mitigation measures, including development of a comprehensive stormwater pollution prevention plan (see table 1-1, Impact/Mitigation Matrix), will reduce the intensity of the construction-related impacts to negligible. The Selected Alternative will improve the condition of the 100-year floodplain by removing the major flow impediments, including guest lodging and maintenance buildings. Placement of realigned Northside Drive and new parking areas in the 100-year floodplain under the Selected Alternative will affect flood flow, but these developments will not substantially alter the flow path of the flood waters because they would have low relief and would not be constructed on an embankment. Overall, the Selected Alternative will have a local, long-term, minor, beneficial impact on Merced River floodplain and water resources. The beneficial impacts associated with removal of major flow impediments from the 100-year floodplain of the Merced River; removal of the diversion dam and revetments in the overflow channels near Yosemite Creek to return the 100-year floodplain to near-natural, free-flow conditions; and improvements to the drainage system will largely offset the adverse effects associated with construction-related stormwater runoff and increased impervious surface area at the project site.

Wetlands

Construction activities associated with the Selected Alternative, including installation and removal of utilities and development of project facilities, will have a moderate adverse impact due to disturbance of 0.43 acres of wetlands (specifically, riverine intermittent drainages). With implementation of mitigation measures (including wetland replacement, erosion control measures, spill prevention and pollution control measures, and wetland protection and compensation measures, such as installing protective fencing material to protect wetlands from construction activities, using silt fencing to reduce erosion, etc.), as described in table 1-1, Impact/Mitigation Matrix, construction impacts to wetlands will be lessened to a minor adverse effect.

No long-term adverse impacts to wetlands will result from the Selected Alternative. Impacts to disturbed wetlands will be compensated at a minimum of 1-acre for 1-acre basis as part of the Selected Alternative restoration actions. Restoration (removal of revetments and the diversion dam) and revegetation (of palustrine and riverine wetlands near the Merced River) under the Selected Alternative will offset the adverse construction-related impacts and improve the connectivity, integrity, and value of wetlands in the project area. The Selected Alternative will result in a net gain of restored wetland area and functional value. Overall, the Selected Alternative will have a local, long-term, negligible to minor, beneficial impact on wetlands.

Vegetation

The Selected Alternative will alter the size, integrity, and continuity of vegetation due to the removal of approximately 1,200 trees (see Errata for a revised description of tree species and size classes to be removed) and potential construction-related vegetation trampling effects, resulting in a local, long-term, minor, adverse impact. Implementation of biological resource protection measures (such as installing temporary fencing, controlling and minimizing invasive non-native species, and implementing revegetation measures to restore disturbed areas), as described in table 1-1, Impact/Mitigation Matrix, will somewhat offset this adverse effect although the impact will remain minor.

As part of the restoration effort, oak woodland rehabilitation will be encouraged through plantings of California black oak seedlings. The landscape of the Yosemite Lodge Area Redevelopment site will be revegetated based upon the principles described in the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge*. Existing and historic vegetation communities will be re-established and enhanced within the project area using an applied ecological approach to revegetation. Revegetation and landscaping at the site will emulate natural vegetation succession, native community structure, and species composition. Overall, the Selected Alternative will have a local, long-term, negligible to minor, beneficial impact because the restoration and revegetation efforts will offset the adverse construction-related effect associated with tree removal.

Wildlife

Construction-related activities will have a minor to moderate adverse effect on wildlife through habitat disturbance (including tree removal), noise, human presence, and operation of heavy equipment. Implementation of mitigation measures, such as preconstruction wildlife surveys and erosion and sedimentation control measures (see table 1-1, Impact/Mitigation Matrix), will reduce the magnitude of construction-related adverse effects on wildlife to minor. Moderate, adverse, operation-related effects on wildlife will occur through habitat fragmentation, increased human presence, expansion of development into undeveloped areas, and creation of facilities that could attract black bears to the project site. Food waste control and other measures developed in coordination with the Bear Management Council will reduce the severity of this adverse effect. The beneficial effects on wildlife and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek will somewhat offset but not reduce the intensity of the adverse construction- and operation-related impacts associated with the Selected Alternative. Overall, the Selected Alternative will have a local, long-term, moderate, adverse effect on wildlife.

Special-status Species

Special-status species known to occur or with potential to occur in the immediate vicinity of the Yosemite Lodge Area Redevelopment site include bald eagle, Yosemite Mariposa sideband snail, Sierra pygmy grasshopper, Harlequin duck, peregrine falcon, white-headed woodpecker, rufous hummingbird, California spotted owl, golden eagle, Cooper's hawk, sharp-shinned hawk, willow flycatcher, yellow warbler, 10 species of bats, and 8 special-status plant species (refer to the *Yosemite Lodge Area Redevelopment Environmental Assessment* for additional information).

Construction-related activities will have a minor to moderate adverse effect on special-status species through habitat disturbance (including tree removal), noise, human presence, and operation of heavy equipment. Implementation of mitigation measures, such as preconstruction surveys, nest monitoring, and avoidance of special-status species and occupied habitat wherever feasible (see table 1-1, Impact/Mitigation Matrix), will reduce the magnitude of the adverse construction-related effects on special-status species. The beneficial effects to special-status species and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek will offset the adverse construction- and development-related effects associated with the Selected Alternative. Overall, the Selected Alternative will have a local, long-term, negligible, beneficial effect on special-status species.

Air Quality

Construction activities associated with the Selected Alternative will have a minor to moderate, adverse effect on air quality. As described in table 1-1, Impact/Mitigation Matrix, implementation of practices such as watering, covering stockpiles, and covering haul trucks will reduce the intensity of the adverse construction-related emissions to negligible to minor. Overall, the Selected Alternative will have a local, long-term, negligible, beneficial effect on air quality associated with the substantial decrease in the amount of vehicle emissions on busy days. The beneficial operational effects will offset the long-term but temporary adverse effects to air quality associated with demolition and construction activities and increased nonvehicle operational emissions.

Noise

Noise generated by demolition and construction activities under the Selected Alternative will have a local, long-term but temporary, major, adverse effect (as analyzed and disclosed in the *Final Yosemite Valley Plan* and its *Supplemental Environmental Impact Statement*) on the ambient noise environment during the 13-year construction period. As noted in table 1-1, Impact/Mitigation Matrix, measures will be employed to mitigate adverse noise impacts, including implementation of standard noise abatement measures during construction (such as schedules that minimize impacts to adjacent noise-sensitive uses), use of best-available noise control techniques where feasible, use of hydraulically or electrically powered impact tools when feasible, and siting of stationary noise sources as far from noise-sensitive uses as possible. Although the mitigation measures will somewhat reduce construction noise levels, during intense periods of construction the noise levels will continue to be substantial and highly noticeable. Overall activity and associated nonvehicle noise levels generated on and near Yosemite Lodge and Camp 4 would increase. The realignment of Northside Drive and new design of the local circulation and parking system would decrease ambient noise levels at locations where traffic was the dominant noise source, particularly near Camp 4. Overall, the Selected Alternative will have a

local, long-term, moderate, adverse effect on the noise environment. The adverse effects associated with construction noise and increases in nonvehicle operational noise will be somewhat offset by the beneficial effects associated with reduced vehicle noise in the vicinity of Camp 4 and the new multi-use paved trail.

Cultural Resources

Cultural resources consist of archeological sites, traditional American Indian resources, and cultural landscapes. Under the Selected Alternative, construction-related activities will have a minor to moderate adverse effect on five archeological resources within the construction and demolition footprint. As identified in table 1-1, Impact/Mitigation Matrix, mitigation measures will be implemented, including site design to avoid resources, archaeological testing and sampling, data recovery during construction monitoring, and interpretation. With mitigation, the Selected Alternative will have a local, permanent, minor, adverse effect on archeological resources associated with construction-related activity and operational disturbances. Site-specific planning will be conducted in accordance with stipulations in the park's 1999 Programmatic Agreement.

Construction-related activities will have a minor to moderate adverse effect on American Indian traditional resources. As identified in table 1-1, Impact/Mitigation Matrix, mitigation measures will include project design to avoid resources, construction monitoring by Native American representatives as appropriate and agreed upon in consultation with culturally associated Indian Tribes, confining construction activities to the development footprint, revegetation with traditionally used plants, and monitoring of plant growth. With mitigation to offset adverse construction impacts, the Selected Alternative will have an overall local, long-term, minor, beneficial impact on traditional resources.

The Selected Alternative will alter two trails and Camp 4, which are eligible for listing or listed on the National Register of Historic Places. The trails are contributing elements to the Yosemite Valley Cultural Landscape as circulation systems. These impacts to cultural landscape resources will be minor and adverse. As identified in table 1-1, Impact/Mitigation Matrix, mitigation measures will include photography, documentation, and interpretation in accordance with the parks 1999 Programmatic Agreement. Overall, the Selected Alternative will have a local, long-term, minor, adverse impact on cultural landscape resources.

Scenic Resources

The Selected Alternative will have a local, long-term, minor, beneficial impact on scenic resources. The beneficial effects associated with the proposed facility design improvements, pedestrian-focused site layout, revegetation and restoration activities, and viewshed and forest management efforts will outweigh the adverse effects to scenic resources associated with construction activities and increased developed features at the project site.

Visitor Experience

Analysis of visitor experience includes consideration of recreation, orientation and interpretation, visitor services, and night sky. Under the Selected Alternative, construction activities will disrupt use of and access to recreation opportunities in the project area and adjacent areas. Traffic control measures, air quality and noise measures, and implementation of a visitor outreach communication plan, as described in table 1-1, Impact/Mitigation Matrix, will be

employed to reduce effects related to recreation access. Construction-phase activities under the Selected Alternative will result in a local, long-term but temporary, minor, adverse impact in the project area. Overall, the Selected Alternative will result in a local, long-term, minor to moderate, beneficial impact due to the provision of additional recreation opportunities and improvement of existing recreation opportunities.

Construction activities under the Selected Alternative will disrupt orientation and interpretation opportunities in the project area. A visitor outreach communication plan and construction phasing, as described in table 1-1, Impact/Mitigation Matrix, will be implemented to reduce effects related to disruption of orientation and interpretation opportunities. Facility construction will result in a local, long-term but temporary, minor, adverse impact to orientation and interpretation. Overall, the Selected Alternative will result in a local and regional, long-term, beneficial impact due to the increase in orientation and interpretation opportunities, particularly at the Indian Cultural Center.

Construction activities will disrupt use of existing visitor-service facilities. Traffic control measures, a visitor outreach communication plan, and construction phasing, as described in table 1-1, Impact/Mitigation Matrix, will be implemented to reduce effects related to visitor services. Facility construction will result in a local, long-term but temporary, minor to moderate, adverse impact to visitor services. Overall, the Selected Alternative will result in a local and regional, long-term, beneficial impact due to improvements to visitor services in the project area and provision of the new Indian Cultural Center.

Construction activities under the Selected Alternative, with mitigation described in table 1-1, Impact/Mitigation Matrix, will result in a local, long-term but temporary, minor, adverse impact to the night sky associated with nighttime lighting. While project operation will require increased exterior lighting, the design of such lighting and the application of mitigation measures (as described in table 1-1, Impact/Mitigation Matrix) will result in a local, long-term, negligible, adverse impact to the night sky.

Socioeconomics

The combined effect of construction spending, visitor spending, and changes in employee housing is expected to result in a long-term, negligible to minor, beneficial impact to the socioeconomic environment. Impacts associated with construction and visitor spending will be beneficial to the regional socioeconomic environment, and impacts associated with employee housing will be beneficial to the local socioeconomic environment.

Transportation

The Selected Alternative will cause local, short-term, minor to moderate, adverse impacts (after mitigation) during site redevelopment related to temporary increases in traffic volumes on area roadways and in the number of turning movements between roadways and staging areas in proximity to the site. Traffic flow conditions will improve resulting in local, long-term, moderate, beneficial impacts particularly due to level of service improvements on realigned Northside Drive. The Selected Alternative will have local, long-term, minor, beneficial effects on traffic safety/conflicts due to fewer intersections and points of pedestrian/vehicle conflict on realigned Northside Drive.

Park Operations and Facilities

Overall, the Selected Alternative will have a local, long-term, moderate, adverse impact on park operations and facilities due to additional staff demands associated with the new facilities and improvements (including restoration and revegetation) in the project area. The adverse effect on park operations will be partially offset by the beneficial impacts associated with improvements to the existing utility system.

Hazardous Materials

Construction activities could result in releases of hazardous materials, resulting in a moderate adverse impact to the environment. Implementation of mitigation measures, such as a spill prevention and pollution control program, preconstruction surveys, and compliance with applicable hazardous materials management regulations, will reduce the magnitude of the adverse impact to negligible to minor. Overall, the Selected Alternative will have a local, long-term, negligible, adverse impact on the environment associated with potential hazardous materials releases. The adverse hazardous materials impact has been somewhat offset by beneficial impacts of Alternative 2 associated with siting new Camp 4 facilities at a remediated site and removal of the electrical substation transformers at Camp 4.

Cumulative Projects

The *Yosemite Lodge Area Redevelopment Environmental Assessment* analyzed cumulative impacts of the Yosemite Lodge Area Redevelopment, and identified four resource topics with major beneficial or major adverse impacts. All of these significant impacts were analyzed and disclosed in the *Final Yosemite Valley Plan* and its *Supplemental Environmental Impact Statement* from which the *Yosemite Lodge Area Redevelopment Environmental Assessment* is tiered. Major beneficial cumulative impacts are attributed to wetlands and transportation improvements. Major adverse cumulative impacts are associated with construction-related noise effects. Minor to major adverse cumulative impacts are associated with disturbance of cultural landscape resources.

Non-Impairment of Park Resources

Based on the analysis provided in the *Yosemite Lodge Area Redevelopment Environmental Assessment*, the National Park Service concludes that implementation of the Selected Alternative will not impair a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Yosemite National Park
- Key to the natural or cultural integrity of Yosemite National Park or to opportunities for enjoyment of the park
- Identified as a goal in the park's *General Management Plan* or other relevant National Park Service planning documents

The Selected Alternative will cause short-term and long-term but temporary adverse construction-related impacts, minor adverse impacts to cultural resources, moderate adverse effects to wildlife, and overall beneficial impacts to other analyzed resource topics. The adverse effects on park resources will be primarily localized and the magnitude of these impacts is not

sufficient to impair park resources. Consequently, implementation of the Selected Alternative will not violate the National Park Service Organic Act of 1916.

Merced Wild and Scenic River

The Selected Alternative is consistent with the Merced River Plan elements of boundaries, classifications, outstandingly remarkable values, Section 7 determination process, the River Protection Overlay, and management zoning. The project will protect and enhance Outstandingly Remarkable Values by removing buildings from the 100-year floodplain, restoring approximately 37.89 acres in the project area, undertaking tree management activities to create a more open landscape similar to Yosemite Valley conditions before Euro-American settlement, creating new recreational opportunities and river bank access with a boardwalk between the Lodge and the Merced River's north bank sandbar allowing visitors access to the river without damaging natural resources, and removing revetments and a diversion dam in the overflow channels near Yosemite Creek. The Selected Alternative does not include any water resources projects; therefore, a Section 7 determination is not applicable.

The Selected Alternative will not impair the National Park Service's ability to address user capacities within the Merced River corridor. The goal of the user capacity mandate of the Wild and Scenic Rivers Act is to ensure that the types and levels of use within a river corridor are protective of the river's outstandingly remarkable values. The Selected Alternative will not result in changes in the types of use of the river corridor, but it will provide for more opportunities to experience the existing spectrum of recreational opportunities in the park (such as camping, and improved opportunities to view the river and waterfalls).

The Selected Alternative also will not lead to increases in the levels of day or overnight use of this segment of the river corridor. This is because the Selected Alternative is consistent with the *Yosemite Valley Plan*, which supports a daily visitation level in the valley (18,241 visitors) approximating that described in the *General Management Plan*. Although the Selected Alternative will provide for an increase in the number of lodging units by 6 and the number of camping spaces by 28 (including 3 Search and Rescue camp sites), once the *Yosemite Valley Plan* is fully implemented these numbers will be offset on a segment-wide basis by the reduction in lodging units in other parts of this segment, such as the reduction of 141 lodging units planned for the Curry Village area. The project's reduction in employee housing will also have a synergistic effect with other *Yosemite Valley Plan* projects that reduce employee housing in this segment of the river corridor. Overall, implementation of the *Yosemite Valley Plan* will not lead to increases in overnight use on a segment-wide basis because the *Yosemite Valley Plan* prescribes an overall reduction in lodging, employee housing, and the built environment, and it provides for restoration of highly valued resource areas in the Valley. Although the Selected Alternative will increase day use within the project area (largely due to the new Indian Cultural Center), the Selected Alternative will not cause a segment-wide increase in day use of this section of the river because the Indian Cultural Center is mostly located outside the corridor and many of the traditional uses that will occur at the new center already occur in the Valley The analysis in the environmental assessment indicates that although there will be increases in use at the project area (mostly due to increased camping at Camp 4 and the new Indian Cultural Center); on a segment-wide basis, the actions will not degrade the outstandingly remarkable values for this recreational river segment of Yosemite Valley. The Selected Alternative will also not impede established VERP parameters or the implementation of VERP indicators and standards.

Growth-Inducing Impacts

The Yosemite Lodge Area Redevelopment will add 6 new lodging units to Yosemite Lodge and 28 new campsites at Camp 4. Implementation of the Selected Alternative will not have growth-inducing impacts in the region (i.e., Yosemite Valley). The Selected Alternative will not foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding region. New development and restoration activities in Yosemite Valley are guided by the Merced River Plan and the *Final Yosemite Valley Plan/SEIS* and its *Record of Decision*. The Yosemite Lodge Area Redevelopment, which is tiered from these plans, will implement Yosemite Lodge and Camp 4 related projects that were identified and analyzed as part of the comprehensive Yosemite Valley planning process. This implementation project will not induce new growth in Yosemite Valley.

Because of the project's small scale, there will be no meaningful indirect increase in new permanent employment generated by the Selected Alternative. During the 13-year project construction period, approximately 65 temporary construction jobs would be created. These positions will not be growth-inducing because of the small number of jobs and the jobs would terminate upon completion of construction activities. Since the new lodging units and campsites will be constructed in an existing developed area within a national park, no new regional-serving infrastructure will be developed in previously undeveloped areas that would indirectly induce population growth in the area. The project will not induce new regional growth and therefore will have a less than significant growth-inducing impact.

Mitigation

A consistent set of mitigation measures will be applied to ensure that implementation of the Selected Alternative protects natural and cultural resources, Outstandingly Remarkable Values, and the quality of the visitor experience. The National Park Service will avoid, minimize, and mitigate impacts to the extent practicable. As such, the project shall avoid or minimize impacts to natural and cultural resources and be designed to work in harmony with the surroundings. The project shall reduce, minimize, or eliminate air and water nonpoint source pollution. The project shall be sustainable whenever practicable by recycling and reusing materials, minimizing materials, and minimizing energy consumption during the project. The following mitigation measures (table 1-1) have been incorporated into the project to avoid or reduce impacts to park resources.

Table 1-1
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
Prior to entry into the park, steam-clean heavy equipment to prevent importation of non-native plant species, tighten hydraulic fittings, ensure hydraulic hoses are in good condition and replace if damaged, and repair all petroleum leaks.	Construction Mitigation Measures	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Inspect the project to ensure that impacts stay within the parameters of the project area and do not escalate beyond the scope of the environmental assessment, as well as to ensure that the project conforms with all applicable permits or project conditions. Store all construction equipment within the delineated work limits. Confine work areas within creek channels to the smallest area necessary.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Implement compliance monitoring to ensure that the project remains within the parameters of National Environmental Policy Act and National Historic Preservation Act compliance documents, U.S. Army Corps of Engineers Section 404 permits, etc.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Provide a project orientation for all construction workers to increase their understanding and sensitivity to the challenges of the special environment in which they will be working.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
If deemed necessary, demolition/construction work on weekends or federal government holidays may be authorized, with prior written approval of the Superintendent.		Yosemite National Park, Project Manager;	Prior to and concurrent with project activities
Remove all tools, equipment, barricades, signs, surplus materials, and rubbish from the project work limits upon project completion. Repair any asphalt surfaces that are damaged due to work on the project to original condition. Remove all debris from the project site, including all visible concrete, timber, and metal pieces.		Yosemite National Park, Project Manager; Contractor	Upon completion of project activities
Implement the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge*, a revegetation plan that conforms to the requirements outlined in the park's *Vegetation Management Plan* and Executive Order 13122 – Invasive Species. Specific components of the plan will include, but not be limited to, the following: soil salvage/reuse, plant salvage, soil preparation, selection, use, and treatment of new soil; use of native plants of native genotypes; seeding mixtures/sources; use of fertilizers; noxious and invasive weed control; supplemental revegetation if initial revegetation fails; repair/replacement of damaged trees; and mulching.	Revegetation	Yosemite National Park, Project Manager; Contractor	Concurrent with and following project activities
Implement a noxious weed abatement program. Standard measures include the following elements: ensure construction-related equipment arrives on site free of mud or seed-bearing material, certify all seeds and straw material as weed-free, identify and treat areas of noxious weeds prior to construction, and revegetate with appropriate native species and monitor the restored site annually for three years to ensure absence of noxious weeds, successful revegetation, plant maintenance, and replacement of unsuccessful plant materials.	Vegetation	Yosemite National Park, Project Manager; Contractor	Prior to, concurrent with and following project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
During design, site buildings, bridges, and trails to minimize impacts to vegetation. Avoid large trees and hardwood and riparian species, where possible. Primary priority will be placed on protecting oak species, and secondary priority on protecting pine species. Retain native trees with a diameter of 20 inches or greater at breast height throughout the site to the extent feasible. As identified in the *Yosemite Lodge Area Redevelopment Environmental Assessment*, approximately 1,200 trees will be removed.		Yosemite National Park, Project Manager; Contractor	Prior to project activities
Select base course and fill materials for compatibility with native granitic soils to minimize risk of introducing non-native plant seeds. All imported fill must be from a park-approved source.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Install temporary barriers to protect natural surroundings (including trees, plants, and root zones) from damage. Avoid fastening ropes, cables, or fences to trees.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Install fencing to minimize use of highly sensitive sites such as creek edges and wetlands, and install signs as needed to direct use to more appropriate areas.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Temporarily install post and rope fencing around the Camp 4 revegetation effort to ensure the success of the revegetation plantings. Subsequent to the successful establishment of the vegetative community, the temporary fencing would be removed.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Use native seed mix or seed-free mulch to minimize surface erosion and the introduction of non-native plants.		Contractor	Concurrent with project activities
In site design, define trails and boundaries of development to confine human use and reduce radiating impacts.		Yosemite National Park, Project Manager; Contractor	Prior to project activities
Comply with the *Vegetation Management Plan* for yard care within and around developed areas, including minimizing irrigation systems and planting native species appropriate to the site.		Yosemite National Park, Project Manager	Concurrent with and upon completion of project activities
A qualified botanist will conduct surveys of the Yosemite Lodge Area Redevelopment site during the appropriate time of year prior to construction to determine whether special-status plant species will be affected by the proposed action.	Special-Status Plant Species	Yosemite National Park, Project Manager	Prior to project activities
If special-status plant species are identified within the construction disturbance zone, in particular within restoration and revegetation areas, avoid special-status plant populations to the extent feasible during construction activities.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
If it is not feasible for construction activities to avoid special-status plant species, species conservation measures will be developed in coordination with Yosemite National Park natural resources staff. Measures may include salvage of special-status plants for use in revegetating disturbed areas and transplantation of special-status plants wherever possible using methods and monitoring identified in the revegetation plan, monitoring to ensure successful revegetation, protection of plantings, and replacement of unsuccessful plant materials if practicable.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
Site all facilities to avoid wetlands or comply with Executive Order 11990 (Protection of Wetlands), the Clean Water Act, and Director's Order 77-1 (Wetland Protection).	Wetlands	Yosemite National Park, Project Manager	Prior to project activities
Store equipment and materials away from all waterways. No debris shall be deposited within 20 meters of Yosemite Creek or within the River Protection Overlay of the Merced River.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Provide proper and timely maintenance for vehicles and equipment used during construction to reduce the potential for mechanical breakdowns. Conduct maintenance and fueling in an area at least 20 meters away from Yosemite Creek and outside of the River Protection Overlay for the Merced River.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Complete work activities in wetlands during periods of low flow.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Obtain full compliance with all permit conditions contained in the Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers and Section 401 water quality certification or waiver from the Regional Water Quality Control Board.		Yosemite National Park, Project Manager	Prior to project activities
Use silt fencing at the Merced River, Yosemite Creek, and drainages to prevent construction materials from escaping work areas.		Contractor	Concurrent with project activities
Make every effort to avoid adversely affecting wetlands during construction activities to the extent feasible. Use fencing to protect wetlands from damage caused by construction equipment, erosion, siltation, and other ground-disturbing activities.		Contractor	Prior to and concurrent with project activities
To compensate for loss or alteration of wetlands, restore wetland habitat within the restoration area identified for this action in an area suitable for wetland restoration at a minimum ratio of 1:1 as part of the restoration program included in Phase 3 of project development. Wetland compensation will include monitoring to ensure successful revegetation, maintenance of plantings, and replacement of unsuccessful plant materials.		Yosemite National Park, Project Manager	Prior to, concurrent with and following project activities
Conduct surveys of the project area to determine the type and number of vulnerable species that may be affected by construction activities and schedule construction activities by taking into consideration seasonal concerns and wildlife lifecyles to minimize effects to wildlife (i.e., after bird nesting seasons, when bats are neither hibernating nor have young, etc).	Wildlife	Yosemite National Park, Project Manager	Prior to project activities
Develop and implement a black bear protection plan for the Camp 4 expansion that includes, but is not limited to, identification of uses and maintenance procedures for the cooking pavilion and gear lockers, development of food enforcement measures, provision of food and waste removal and facility cleaning procedures, and establishment of performance standards setting thresholds for human/bear interactions. The plan will be developed in coordination with the Bear Management Council, and could include a partnership with the American Alpine Club (or another organization) to address the daily maintenance requirements of the pavilion. If the		Yosemite National Park, Project Manager	Concurrent with and upon completion of project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
National Park Service is not able to avoid adverse human/bear interactions at the proposed cooking pavilion through the black bear protection plan, the National Park Service will change management of the pavilion such that use of the pavilion will be restricted to picnicking only and cooking will be done at individual Camp 4 campsites.			
Limit the effects of light and noise on adjacent habitat through controls on construction equipment and through site design of facilities.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Provide adequate education and enforcement to limit visitor and construction worker activities that are destructive to wildlife and habitats.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Preserve, where possible, natural features with obvious high value to wildlife, such as tree snags.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Maintain routes of escape from excavated pits and trenches for animals that might fall in. Cover post holes and other narrow pits with boards. During construction, maintain vigilance for animals caught in excavations and contact the National Park Service Wildlife Office to free them.		Contractor	Concurrent with project activities
Prior to tree management activities, qualified biologists will screen the area for bat roosts, nesting birds, snags, and other features that are important wildlife habitat.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
The Yosemite Lodge Area Redevelopment Site provides nesting habitat for special-status species of birds. Whenever feasible, perform construction-related activities outside the breeding season (typically from March to August). If construction activities are expected to take place during the breeding season, a qualified biologist will conduct preconstruction surveys for individuals no more than two weeks prior to construction in March through August. If any special-status species is observed nesting, a determination will be made as to whether or not the proposed action will affect the active nest or disrupt reproductive behavior. If it is determined that the action will not affect an active nest or disrupt breeding behavior, work will proceed without any restriction or mitigation measure. If it is determined that construction activities will affect an active nest or disrupt reproductive behavior, then avoidance strategies will be implemented. Project activities could be delayed until a qualified biologist determines that the subject birds are not nesting or until any juvenile birds are no longer using the nest as their primary day and night roost.	Special-Status Species of Birds	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
A qualified bat biologist will conduct surveys prior to construction to evaluate whether trees or other habitat (e.g., crevices, buildings) that will be affected by the proposed action provide hibernacula or nursery colony roosting habitat for bat species.	Special-Status Species of Bats	Yosemite National Park, Project Manager	Prior to project activities
Building demolition and tree and snag removal will occur primarily during the period when neither maternity nor hibernation colonies are likely (generally April through May and August through October). If demolition and/or tree removal are slated to occur between November and March or between June and July, a qualified bat biologist will survey		Yosemite National Park, Project Manager	Concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
buildings to be demolished, trees and snags to be removed, and other potential habitat for breeding or hibernating bats prior to any building demolition and/or tree and snag removal activities.			
If bats are detected during reproduction or hibernation periods, demolition or tree/snag removal and disturbance of other potential habitat will be delayed until the bats can be excluded from the structure in a manner that does not adversely affect their survival or that of their young.		Yosemite National Park, Project Manager, Contractor	Concurrent with project activities
If surveys conducted immediately prior to construction do not reveal any bat species present within the project area, then the action will begin within three days to prevent the destruction of any bats that could move into the area after the survey.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Snags will not be removed without prior approval from the National Park Service.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
A qualified biologist will conduct surveys during the appropriate time of year prior to construction to determine whether rockslides, talus, riparian, or meadow habitats that will be affected by the proposed action provide habitat for special-status species of invertebrates. An appropriate survey window for the Sierra pygmy grasshopper would be June to August. An appropriate survey window for the Mariposa sideband snail would be May to June.	Special-Status Species of Invertebrates	Yosemite National Park, Project Manager	Prior to project activities
If surveys reveal the presence of special-status species of invertebrates in the vicinity of the proposed action, species conservation measures will be developed in coordination with Yosemite natural resources staff. Measures may include avoidance of occupied habitat and the implementation of dust abatement measures during construction adjacent to occupied habitat.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
The National Park Service will apply for and comply with all federal and state permits required for construction-related activities that will include, but not be limited to: ▪ U.S Army Corps of Engineers permits for activities affecting wetlands and the Merced River ▪ A technically conditioned certification issued by the California Regional Water Quality Control Board for monitoring construction-related activities affecting the Merced River ▪ U.S. Fish and Wildlife Service permits for activities affecting species protected by the Endangered Species Act	Federal and State Permit Requirements	Yosemite National Park, Project Manager	Prior to project activities
For archeological resources, mitigation includes avoidance of sites through project design, or recovery of information that makes sites eligible for inclusion on the National Register of Historic Places. According to Stipulation VII (C) of the Programmatic Agreement, impacts to archeological resources are not considered adverse for purposes of Section 106 of the National Historic Preservation Act if data recovery is carried out in accordance with the *Archeological Synthesis and Research Design*.	Cultural Resources	Yosemite National Park, Project Manager	Prior to and concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
Mitigation measures for cultural landscape resources include measures to avoid impacts, designing new development to be compatible with surrounding historic resources, and screening new development from surrounding historic resources. Standard mitigation measures, as defined in the Programmatic Agreement (VIII.A.1 [b] and VIII.A.3), include photodocumentation and interpretation.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
The project will strive to avoid intact deposits through careful project design. If intact deposits cannot be avoided, all data recovery to retrieve important information will be conducted in accordance with the Programmatic Agreement. Although not expected, should previously unknown American Indian burial sites be discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act and its implementing regulations will be followed.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
A qualified archeologist, as directed by the Secretary of the Interior and National Park Service standards, will monitor construction activities identified as having the potential to affect previously unrecorded cultural resources.		Yosemite National Park, Project Manager	Concurrent with project activities
When previously unknown cultural resources are encountered during construction, temporarily suspend work in the immediate area to document discovered resources according to National Park Service standards.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Continue to consult with culturally associated American Indian tribes throughout the site-specific design process and project implementation to avoid or mitigate damage to American Indian traditional resources.		Yosemite National Park, Project Manager	Prior to, concurrent with and following project activities
Mitigate impacts to American Indian traditional resources through actions developed in consultation with culturally associated American Indian tribes (i.e., continuing to provide access to traditional and spiritual locations and, where appropriate, screening new development from traditional use areas).		Yosemite National Park, Project Manager	Prior to project activities
Precede removal of trees and vegetation with site-specific reconnaissance to protect and maintain the view corridors and avoid potential impacts to cultural landscape resources.		Yosemite National Park, Project Manager	Prior to project activities
Do not locate interim or permanent bus parking adjacent to the Indian Cultural Center.		Yosemite National Park, Project Manager	Concurrent to project activities
In order to discourage visitor trampling of American Indian traditional resources, place barriers and signs (that have been developed in consultation with associated American Indian tribes) along the trails, in the restoration areas, and around the Indian Cultural Center.		Yosemite National Park, Project Manager	Concurrent to and following project activities
Prepare inadvertent discovery plans in accordance with the Native American Graves and Repatriation Act for procedures and treatment.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Design all new construction within historic districts and landscapes or adjacent to historic sites to be compatible in terms of architectural elements, scale, massing, materials, and orientation.		Yosemite National Park, Project Manager	Prior to project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
Undertake all treatments within cultural landscapes in keeping with the Secretary of The Interior's Standards for the Treatment of Historic Properties.		Yosemite National Park, Project Manager	Prior to project activities
Cover and/or seal truck beds and stockpiles to minimize blowing dust or loss of debris.	Dust Abatement Measures	Contractor	Concurrent to project activities
Limit truck and related construction equipment speeds in active construction areas to a maximum of 15 miles per hour and strictly adhering to park regulations and posted speed limits in other areas while inside park boundaries.		Contractor	Concurrent to project activities
Maintain adequate dust suppression equipment and using clean water to control excess airborne particulates at staging areas, active construction zones, and unpaved roads leading to/from active construction areas.		Contractor	Concurrent with project activities
Develop an emergency notification plan that complies with park, federal, and state requirements and allows contractors to properly notify park, federal, and/or state personnel in the event of an emergency during construction activities. This plan will address notification requirements related to fire, personnel, and/or visitor injury, releases of spilled material, evacuation processes, etc. The emergency notification plan will be submitted to the park for review/approval prior to commencement of construction activities.	Emergency Notification Measures	Yosemite National Park, Project Manager	Prior to project activities
Notify utilities prior to construction activities. Identify locations of existing utilities prior to removal activity to prevent damage to utilities. The Underground Services Alert and National Park Service maintenance staff will be informed 72 hours prior to any ground disturbance. Construction-related activities will not proceed until the process of locating existing utilities is completed (water, wastewater, electric, communications, and telephone lines). An emergency response plan will be required of the contractor.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Use approved siltation and sediment control devices in construction areas to reduce erosion and surface scouring.	Erosion Control Measures	Contractor	Concurrent with project activities
Use approved siltation and sediment control devices appropriate to the situation in grading areas to capture eroding soil before discharge to riparian channels.		Contractor	Concurrent with project activities
Use water bars in temporary access roads to control and reduce surface scouring.		Contractor	Concurrent with project activities
Conserve and salvage topsoil for reuse. Materials will be reused to the maximum extent possible.		Contractor	Concurrent with project activities
Store and use all hazardous materials in compliance with federal regulations. All applicable Materials Safety Data Sheets will be kept on site for inspection.	Hazardous Materials Measures	Contractor	Concurrent with project activities
Prior to initiation of any construction-related activities, conduct a reconnaissance of areas with the potential for underground storage tanks (i.e., the site of the former gas station near the current Yosemite Lodge kitchen loading dock and the existing Camp 4 restroom) for above-ground evidence of storage tank appurtenances (e.g., vents and piping). If no above-ground evidence is found during the reconnaissance, it will be followed by a focused magnetometer and ground-penetrating radar survey to determine whether any underground storage tanks remain in		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
these areas. If an underground storage tank is identified in this reconnaissance effort or during project excavation or grading, work will be stopped. The Regional Water Quality Control Board will be notified, the tank removed, and the site remediated in compliance with current regulatory requirements			
and standards. Site remediation, if necessary, will be completed with oversight by the Regional Water Quality Control Board.			
Comply with all applicable regulations and policies during the removal and remediation of asbestos, lead paint, and polychlorinated biphenyls.		Contractor	Concurrent with project activities
Ensure that all construction equipment has functional exhaust/muffler systems.	Noise Abatement Measures	Contractor	Concurrent with project activities
Submit a construction work plan/schedule that minimizes construction-related noise in noise-sensitive areas to the park for review/approval prior to commencement of construction activities.		Contractor	Prior to project activities
Use hydraulically or electrically powered construction equipment, when feasible.		Contractor	Concurrent with project activities
Locate stationary noise sources as far from sensitive receptors as possible.		Contractor	Concurrent with project activities
Limit the idling of motors except as necessary (e.g., concrete mixing trucks).		Contractor	Concurrent with project activities
To the extent possible, perform all on-site noisy work above 76 A-weighted decibels (dBA) (such as the operation of heavy equipment) between the hours of 8:30 a.m. and 5:00 p.m. to minimize disruption to nearby park users.		Contractor	Concurrent with project activities
Fence construction staging areas and construction activity areas to visually screen construction activity and materials.	Scenic Resources Protection Measures	Contractor	Concurrent with project activities
Consolidate construction equipment and materials to the staging areas at the end of each work day to limit the visual intrusion of construction equipment during nonwork hours.		Contractor	Concurrent with project activities
Develop and implement a comprehensive spill prevention/response plan that complies with federal and state regulations and addresses all aspects of spill prevention, notification, emergency spill response strategies for spills occurring on land and water, reporting requirements, monitoring requirements, personnel responsibilities, response equipment type and location, and drills and training requirements. The spill prevention/response plan will be submitted to the park for review/approval prior to commencement of construction activities.	Spill Prevention/Response Measures	Contractor	Prior to project activities
To minimize the possibility of hazardous materials seeping into soil or water, check equipment frequently to identify and repair any leaks. Standard measures include hazardous materials storage and handling procedures; spill containment, cleanup, and reporting procedures; and limitation of refueling and other hazardous activities to upland/nonsensitive sites. Provide an adequate hydrocarbon spill containment system (e.g., absorption materials, etc.) on site, in case of unexpected spills in the project area. Ensure equipment is equipped with a hazardous spill containment kit. Ensure that personnel trained in		Contractor	Concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
the use of hazardous spill containment kits are on site at all times during construction activities.			
Develop and implement a comprehensive stormwater pollution prevention plan for construction activities that complies with federal and state regulations and addresses all aspects of stormwater pollution prevention. The stormwater pollution prevention plan will be submitted to the park for review/approval prior to construction activities.	Stormwater Pollution Prevention Measures	Contractor	Prior to and concurrent with project activities
The stormwater pollution prevention plan will include such measures as, but is not limited to the following: ▪ Take measures to control erosion, sedimentation, and compaction, and thereby reduce water pollution and adverse water quality effects on the Merced River and Yosemite Creek. Use silt fences, sedimentation basins, etc. in construction areas to reduce erosion, surface scouring, and discharge to water bodies ▪ To the extent possible, schedule the use of mechanical equipment during periods of low precipitation to reduce the risk of accidental hydrocarbon leaks or spills. When mechanical equipment is necessary outside of low precipitation periods, use National Park Service–approved methods to protect soil and water from contaminants ▪ Dispose of volatile wastes and oils in approved containers for removal from construction sites to avoid contamination of soils, drainages, and watercourses ▪ Inspect equipment for hydraulic and oil leaks prior to use on construction sites, and implement inspection schedules to prevent contamination of soil and water ▪ Keep absorbent pads, booms, and other materials on site during projects that use heavy equipment to contain oil, hydraulic fluid, solvents, and hazardous material spills			
Develop and implement a comprehensive traffic control and visitor protection plan for park review/approval that: ▪ Complies with necessary U.S. Department of Transportation, Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI-Traffic Control for Construction and Maintenance Operations, and California Department of Transportation Standard Spec4ifications, Section 12 ▪ Provides procedures for preparing and submitting specific street closure, traffic control, and detour plans for each specific area of project construction not less than three weeks before commencement of construction activities in each area ▪ Provides procedures for managing staging areas to restrict public access and maintain site safety ▪ Ensures that visitors are safely and efficiently routed around construction areas in the Valley ▪ Outlines measures to largely offset the potential for public exposure to noxious materials or contaminants that may be present during	Traffic Control and Visitor Protection Measures	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
construction in the project area (i.e., by providing established and maintained walkways and bridges across the site, covering walking paths with clean soil and asphalt, and providing barrier fencing along trails)			
Provide protective fencing enclosures around construction areas, including utility trenches, to protect public health and safety.		Contractor	Concurrent with project activities
Install appropriate traffic signs.	Transportation Measures	Yosemite National Park, Project Manager	Concurrent with and following project activities
Provide a warning sign to alert drivers of Northside Drive realignment.		Yosemite National Park, Project Manager	Prior to, concurrent with and following project activities
Avoid interrupting traffic on Northside Drive and Southside Drive at the same time to limit undue congestion and adverse visitor experiences.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Locate construction worker parking outside of Yosemite Valley, with the exception of key supervisory personnel (approximately four to seven individuals).		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Transport construction personnel into and out of Yosemite Valley during Phases 1 and 2 approximately 7 to 10 shuttle vans.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Verify utility locations by contacting the Underground Services Alert prior to the start of construction.	Utility Measures	Yosemite National Park, Project Manager; Contractor	Prior to project activities
Observe California Department of Health Services standards in designing utility systems.		Yosemite National Park, Project Manager	Prior to project activities
Promptly reconnect utility services that are interrupted because of construction activities and provide advance notification to all residents, concessioners, and others if utility service will be disrupted.		Yosemite National Park, Project Manager; Contractor	Concurrent with and following project activities
Develop and implement a visitor outreach and communication plan that addresses means for effectively communicating Valley construction and road, trail, recreation uses, and other visitor facility closure, relocation, and detour schedules to the public.	Visitor Experience Measures	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Schedule construction activities that will interrupt operations at visitor serving, orientation, and interpretation facilities (food service, retail, tour/activity desk, information kiosk, and interpretive programming) during lower visitor-use periods (late fall and winter), to the extent possible.		Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Temporarily relocate interpretive services provided at the amphitheater while the existing amphitheater is unavailable for use, the information board at Camp 4, and the Valley tram tour pick up location to nearby locations during construction activities that interrupt use.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities

Table 1-1 (Continued)
Impact/Mitigation Matrix

Mitigation Measure	Impact Topic	Responsibility	Critical Milestones
To the extent possible, schedule necessary 24-hour construction activities in the immediate vicinity of campgrounds and lodging units such that they occur during periods when those areas are closed or not in use.	Night Sky Measures	Contractor	Concurrent with project activities
Direct and shield night lighting associated with construction equipment to minimize light scatter effects.		Contractor	Concurrent with project activities
Design interior and exterior lighting to prevent escaped light.		Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Use more intense and uniform light to promote security where human activity is high, and use lower light levels to provide wayfinding within developed areas, as needed.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Provide lights in developed areas for safety where pedestrians cross busy intersections.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Use low-height, lighted bollards in parking areas in lieu of overhead pole lighting.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Use downward-facing and unobtrusive luminaries at facilities and building entrances and exits.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Develop and implement a comprehensive waste management plan that complies with federal and state regulations and addresses all aspects related to the transportation, storage, and handling of construction-related hazardous and nonhazardous liquid and solid wastes and submit the plan to the park for review/approval prior to the commencement of construction activities.	Waste Management Measures	Contractor	Prior to project activities
Require construction personnel to adhere to park regulations concerning food storage and refuse management.		Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Provide bear-proof containers in the camping and picnic areas.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Provide adequate cleaning of areas and garbage pickup to limit wildlife access to human food.		Yosemite National Park, Project Manager	Concurrent with and following project activities
Dispose of refuse at least weekly, and do not burn refuse inside the park.		Yosemite National Park, Project Manager	Concurrent with and following project activities

Public Involvement and Coordination

Public Involvement

The National Park Service conducted an extensive public scoping process for the Yosemite Lodge Area Redevelopment. In the summer of 2002 and winter 2003, the *Yosemite Planning Update* newsletter provided information to the public on the plans for the Yosemite Lodge Area Redevelopment and project status. Letters from the park superintendent in September 2002 announced the public scoping period for the Yosemite Lodge Area Redevelopment and the decision to include the planning and compliance for the Indian Cultural Center in the environmental assessment. Information on the project was published on the park Web site. Press releases announcing the availability of the Environmental Assessment, describing the proposed action, and requesting comments were issued on September 8, 2003.

Onsite Public Meetings

The National Park Service conducted a formal public scoping period from September 19, 2002 through October 26, 2002, including a one-day public scoping meeting at Yosemite Lodge on October 23, 2002. Two-hundred and sixty-six (266) responses were received through written correspondence during the formal public scoping comment period.

The National Park Service also held a series of informal Public Open Houses on the Yosemite Lodge Area Redevelopment and other upcoming park projects. Public meetings were held approximately monthly from June 2002 through October 2003. The purpose of these meetings was to: (1) provide participants with an overview of existing conditions and the proposed action, (2) ask participants to identify key issues that should be analyzed during the environmental review and compliance process, and (3) provide an opportunity for participants to ask questions regarding project alternatives and the overall environmental review and compliance process. Approximately 20 to 70 or more individuals attended each of the informal Public Open Houses. Primary issues raised by the public during the informal Public Open Houses included:

- Rebuilding Yosemite Lodge to accommodate the same number of guests as before the 1997 flood
- Renovating existing lodging units rather than building new lodging units
- Relocating Northside Driver into the 100-year floodplain
- Justifying considerable expense to create six additional lodging units
- Considering distances between parking lots and lodging units
- Providing disabled access
- Identifying the number of economy lodging units and when such units would be available

Public Comment

The *Yosemite Lodge Area Redevelopment Environmental Assessment* was released for a 30-day public review period beginning on September 12, 2003, and closing on October 11, 2003.

The National Park Service received requests to extend the public review period up to an additional 90 days. The National Park Service declined to extend the public review period because the agency provided the 30-day public review period required by *Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making*. It is the discretion of National Park Service

management to determine the public review period for environmental compliance documents, as long as this review period is consistent with NEPA and Director's Order 12.

During the public review period, the National Park Service held a Public Open House in Yosemite Valley, East Auditorium on September 24 from 2:00 p.m. to 6:00 p.m. to accept public comment on the *Yosemite Lodge Area Redevelopment Environmental Assessment*. Approximately 25 comments on the Yosemite Lodge Area Redevelopment were received during the Public Open House. Primary issues raised by the public during the Public Open House were similar to the issues raised during the informal Public Open Houses, as noted above. In addition to mailing 533 paper and 85 compact disk copies of the environmental assessment to individuals on the park's mailing list, the National Park Service also posted the environmental assessment on its website and made copies available at approximately 27 public libraries, including the California State Library, Groveland Branch Library, Los Angeles City Public Library, Mariposa County Public Library, Oakhurst Public Library, Sacramento County Public Library, San Francisco City Public Library, U.S. Department of the Interior Library, and Yosemite Research Library. In addition, the National Park Service held regular informal Public Open Houses to disseminate information and collect informal written comments on the Yosemite Lodge Area Redevelopment and other projects, as described above.

Comments received during the formal public comment period consisted of 103 letters, emails, and faxes from individuals and organizations with a total of 162 public concerns. Issues raised included the nature and range of alternatives, the assessment of impacts on natural and cultural resources, concerns about development in Yosemite Valley, compliance with the Wild and Scenic River Act, and issues related to visitor experience. None of the comments received introduced substantive new information nor raised any issues not fully considered in the *Yosemite Lodge Area Redevelopment Environmental Assessment*. No modifications to the Selected Alternative were made as a result of comments. Several of the public comments received provided additional nonsubstantive information or requested additional clarification. The information was fully considered by the National Park Service in the decision-making process, and has been documented through the preparation of an Errata Sheet, which is to be attached to the environmental assessment to comprise a full and complete record of the environmental impact analysis. The Errata Sheet will be distributed to all recipients of the environmental assessment with instructions to attach the Errata to the environmental assessment. All comments that were received throughout the entire planning process (and their disposition) are contained in the administrative record, which is maintained at Yosemite National Park, and is available for public review.

Coordination

U.S. Army Corps of Engineers

The National Park Service is currently consulting with U.S. Army Corps of Engineers to ensure compliance with Section 404 of the Clean Water Act. The National Park Service will obtain a Nationwide Permit for project activities within waters of the U.S. before project implementation.

Central Valley Regional Water Quality Control Board

The National Park Service is currently consulting with the Central Valley Regional Water Quality Control Board to ensure compliance with Section 401 of the Clean Water Act. The National Park

Service will obtain the appropriate state permits (including Section 401 water quality certification, the National Pollutant Discharge Elimination System for stormwater discharge, and the state's groundwater protection program) as necessary.

In compliance with the National Pollutant Discharge Elimination System permit, the National Park Service will oversee development and implementation of a stormwater pollution prevention plan for construction activities to minimize pollutants and sediment in stormwater runoff originating from construction sites.

U.S. Fish and Wildlife Service

The Endangered Species Act of 1973, as amended (16 United States Code 1531 et seq.), requires all federal agencies to consult with the U.S. Fish and Wildlife Service to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitat. The National Park Service requested a list of federally listed endangered and threatened species that may be present within the Yosemite Lodge Area Redevelopment site from the U.S. Fish and Wildlife Service on September 23, 2002. The list received from the U.S. Fish and Wildlife Service on September 27, 2002 was used as a basis for the special-status species analysis in the environmental assessment. On October 20, 2003, the U.S. Fish and Wildlife Service provided the National Park Service with written concurrence that the Yosemite Lodge Area Redevelopment is not likely to adversely affect any threatened or endangered species or critical habitat.

California State Historic Preservation Office

A Programmatic Agreement among the National Park Service at Yosemite, the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding Planning, Design, Construction, Operations and Maintenance, in Yosemite National Park, California was developed in consultation with Native American tribes having cultural association with Yosemite National Park and was executed in October 1999. Pursuant to Stipulation VI of the Programmatic Agreement, the National Historic Preservation Act of 1966, as amended, Section 106 review process is integrated with this NEPA review process. The National Park Service has provided notice of the project and a copy of the *Yosemite Lodge Area Redevelopment Environmental Assessment* to the California State Historic Preservation Office. The National Park Service and the State Historic Preservation Office will continue consultation regarding avoidance and minimization of adverse effects to historic properties.

The Selected Alternative is consistent with the National Historic Preservation Act, as amended, Section 106 requirement to take into account the effect of an undertaking on any historic properties, including districts, sites, buildings, structures, objects, and resources to which associated Native Americans attach traditional cultural and religious significance. The Selected Alternative will avoid, minimize, or resolve adverse effects to historic properties including archaeological sites, historic buildings, structures, cultural landscapes and traditional resources considered significant to Native American groups associated with Yosemite National Park. Where practicable, the Selected Alternative will be designed to avoid historic properties. In instances where avoidance is not practicable, adverse effects will be resolved to no adverse effect in accordance with Sections VII and VIII of the 1999 Programmatic Agreement.

Native American Consultation

National Park Service consultation with culturally associated American Indian groups occurred throughout the development of the *Yosemite Valley Plan*. Yosemite National Park is consulting with American Indian tribes having cultural association with Yosemite Valley, including the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation), the Tuolumne Me-wuk Tribal Council, and the Mono Lake Kutzadika Paiute Indian Community on proposed actions under the Yosemite Lodge Area Redevelopment including the Indian Cultural Center. Information sharing and project planning has included face to face consultation sessions with the Southern Sierra Miwuk Nation on January 31, February 27, April 24, May 29, and July 16, 2003. Consultation and partnering will continue with the Native American Indian tribes throughout the planning and implementation of the Yosemite Lodge Area Redevelopment.

Conclusion

Based on the information contained in the *Yosemite Lodge Area Redevelopment Environmental Assessment* as summarized above, the nature of comments of agencies and the public, and the incorporation of the mitigation measures to avoid or reduce potential direct, indirect, and cumulative impacts, it is the determination of the National Park Service that the Selected Alternative is not a major federal action significantly affecting the quality of the human environment. All foreseeable connected actions were considered in arriving at this determination. The Yosemite Lodge Area Redevelopment is prescribed in the *Final Yosemite Valley Plan/SEIS* and its *Record of Decision*. No long-term adverse impacts to floodplains or wetlands will occur from the Selected Alternative. Therefore, the National Park Service finds the Selected Alternative to be acceptable under Executive Order 11988 for the protection of floodplains and Executive Order 11990 for the protection of wetlands. Therefore, in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9), an environmental impact statement will not be prepared. The Selected Alternative as detailed in the *Yosemite Lodge Area Redevelopment Environmental Assessment* may be implemented as soon as practicable.

Recommended:

Superintendent, Yosemite National Park — Date

Approved:

Director, Pacific West Region, National Park Service — Date

Yosemite Lodge Area Redevelopment

Yosemite National Park

Errata Sheets

The environmental assessment was available for public review and comment for a 30-day period beginning on September 12, 2003, and closing on October 11, 2003. The comments received were screened to determine whether any new issues, reasonable alternatives, potential for significant impacts, or mitigation measures were suggested. The comments received did not identify new issues, alternatives, or mitigation measures, nor did they correct or add substantially to the facts presented in or increase the level of impact described in the environmental assessment. Comments in favor of or against the proposed action or alternatives, or comments that only agree or disagree with National Park Service policy are not considered substantive (i.e., they did not challenge the accuracy of the analysis, dispute information accuracy, suggest different viable alternatives, and/or provide new information that makes a change in the proposal). Although no modifications to the Selected Alternative were made as a result of comments, several comments (although not substantive) did result in minor changes and technical corrections to the environmental assessment.

The comments received that resulted in text changes to the environmental assessment are outlined below. When a change was made as part of a response to a comment on the *Yosemite Lodge Area Redevelopment Environmental Assessment*, the comment number is noted in brackets at the end of the revised text. All public comments received, and their disposition, are contained in the administrative record. These and all other project documentation are maintained at Yosemite National Park and are available for public inspection upon request.

Comments requiring Changes to the Text of the Environmental Assessment

1. **Commentors requested that the National Park Service provide additional information on the "Yosemite Falls experience."**

The National Park Service adds the following sentence on page 11-17, **Yosemite Lodge Character**, at the end of the paragraph.

> "The National Park Service intends to enhance opportunities for park visitors to view and appreciate Yosemite Falls, the highest waterfall in North America and the fifth highest in the world, from the Lodge site. [Public Concern 148]."

2. The National Park Service decided to remove a section of existing Northside Drive west of the roundabout between the proposed multi-use path and the proposed roundabout in response to public safety concerns.

The section of existing Northside Drive will be removed to ensure that visitors do not use the roundabout as a drop-off area potentially resulting in dangerous situations and to avoid pedestrians and bikers from accidentally entering the roundabout from the proposed multi-use trail resulting in potential disruption and confusion. Removal of this section of Northside Drive would mean that the proposed multi-use path could no longer be used for emergency vehicle egress from Yosemite Valley. Based on new available information, in an emergency flood situation there are several portions of Northside Drive that are submerged at approximately the same flood stage as existing Northside Drive through the Lodge (e.g., El Capitan area and the Slaughterhouse Meadow area), which indicates that Northside Drive should not be used for emergency egress during flood events. In emergency situations (flood and otherwise), Southside Drive would be used as a two-way emergency route out of Yosemite Valley when necessary.

On page 11-21, **Northside Drive,** the following sentences replace sentences 2 through 4 of paragraph 3. This modification does not result in substantive changes to the impact analysis.

> "In an emergency flood situation there are several portions of Northside Drive that are submerged at approximately the same flood stage as existing Northside Drive through the Lodge (e.g., El Capitan area and the Slaughterhouse Meadow area), which indicates that Northside Drive should not be used for emergency egress during flood events. In emergency situations (flood and otherwise), Southside Drive would be used as a two-way emergency route out of Yosemite Valley when necessary."

3. Commentors requested that the National Park Service clarify the differences in the number of parking spaces at Yosemite Lodge identified in the *Yosemite Valley Plan* compared to the number of Lodge parking spaces identified in the *Yosemite Lodge Area Redevelopment Environmental Assessment*.

This concern seeks clarification of the number of Yosemite Lodge parking spaces presented in the environmental assessment. This clarification does not resulting changes to the impact analysis.

Industry standards typically call for a 1 to 1.7 (lodging unit to parking space) parking ratio at lodging facilities. The *Yosemite Valley Plan* used a 1 to 1 parking ratio and called for 251 parking spaces at the Lodge. After further consideration as part of this site-specific planning and design process, the 1 to 1 ratio called for in the *Yosemite Valley Plan* was determined an infeasible parameter for operating Yosemite Lodge, in particular because some Lodge guests will continue to park their cars at the Lodge and tour Yosemite Valley after they check out of their rooms. The Yosemite Lodge Area Redevelopment therefore calls for a 1 to 1.3 parking ratio to allow guests checking out of their rooms (but not leaving the park immediately) to not impede new guests arriving and checking into their rooms. As a result, the National Park Service will provide 251 overnight parking spaces at Yosemite Lodge as well as 75 overlap parking spaces.

The *Yosemite Valley Plan* also permits designated employee parking spaces (for late-night and early-morning shift workers) in Yosemite Valley. As part of the site-specific planning and design process, the National Park Service determined that it was appropriate to provide 20 such spaces on the Lodge site. The *Yosemite Valley Plan* does not provide guidance on the provision of maintenance and loading/unloading parking spaces. In order to provide effective visitor services

and park operations at Yosemite Lodge, the National Park Service also determined that 15 maintenance vehicle parking spaces and 40 loading/unloading parking spaces (to make transport of personal belongings to lodging rooms more convenient and encourage visitors to remove all items from their vehicles that could attract bears) are needed at Yosemite Lodge.

In keeping with the intent of the *Yosemite Valley Plan* to reduce vehicle congestion in Yosemite Valley, close Northside Drive to vehicles, and convert Southside Drive to two-way traffic east of El Capitan crossover, the National Park Service analyzed the Valleywide traffic impacts of these proposed parking spaces and determined that the proposed parking spaces would not reduce the levels of service on planned Valley roadways and would not preclude the National Park Service from fully implementing the transportation improvements proposed in the *Yosemite Valley Plan*. In addition, the 75 overlap, 40 loading/unloading, 20 employee, and 15 maintenance vehicle parking spaces and 15 overnight tour bus parking spaces will not increase use or visitation at Yosemite Lodge above the levels envisioned by the *Yosemite Valley Plan.* Overnight vehicle parking will not be allowed in the overlap or loading/unloading parking spaces.

Page II-24, **Lodge Guest Parking**, the following paragraph is added after the first paragraph on page II-24.

> "Consistent with the *Final Yosemite Valley Plan* (see page 2-75), the National Park Service is providing 251 overnight parking spaces at Yosemite Lodge. The *Yosemite Valley Plan* also permits designated employee parking spaces (for late-night and early-morning shift workers) in Yosemite Valley, and the National Park Service intends to provide 20 such spaces on the Lodge site. The *Yosemite Valley Plan* does not provide guidance on the provision of maintenance, overlap, and loading/unloading parking spaces. In order to provide effective visitor services and park operations at Yosemite Lodge, the National Park Service determined that 15 maintenance vehicle parking spaces, 75 overlap parking spaces (for overnight Lodge guests who continue to park their cars at the Lodge and tour Yosemite Valley after they check out of their rooms), and 40 loading/unloading parking spaces (to make transport of personal belongings to lodging rooms more convenient and encourage visitors to remove all items from their vehicles that could attract bears) are needed at Yosemite Lodge. In keeping with the intent of the *Yosemite Valley Plan* to reduce vehicle congestion in Yosemite Valley, close Northside Drive to vehicles, and convert Southside Drive to two-way traffic east of El Capitan crossover, the National Park Service analyzed the Valley-wide traffic impacts of these proposed parking spaces and determined that the proposed parking spaces would not reduce the levels of service on planned Valley roadways and would not preclude the National Park Service from fully implementing the transportation improvements proposed in the *Yosemite Valley Plan* [Public Concern 88]."

4. Commentors requested that the National Park Service include the rationale for the proposed new amphitheater construction in the environmental assessment. This modification does not result in changes to the impact analysis.

Page II-24, **Amphitheater**, the following sentence is added to the end of the paragraph.

> "A new amphitheater would allow the National Park Service to accommodate larger groups at interpretive talks, host additional evening programs, and improve interpretive programs for Yosemite visitors. [Public Concern 160]."

5. Commentors requested that the construction phasing effort be reduced to six years.

The National Park Service determined the construction phasing schedule for the Yosemite Lodge Area Redevelopment based upon when funding would be available for the project components, and also to keep the project area operational for visitors with no net loss of lodging units or campsites during project construction. Given current funding projections, the Yosemite Lodge Area Redevelopment will be completed as expeditiously as possible with the least possible disruption to park visitors. The majority of disruption associated with construction activity is anticipated to occur during Phase 1 (approximately spring 2004 through summer 2006).

Page II-30, **Construction Phasing**, the following paragraph is added following paragraph 1. This modification does not result in changes to the impact analysis.

> "In an effort to expedite construction phasing for funded projects, the National Park Service may construct the proposed new registration building at Yosemite Lodge during Phase 1 construction, and Phase 3 Restoration and Revegetation may proceed a few years earlier than previously anticipated. These minor modifications in construction phasing do not result in changes to the impact analysis. [Public Concern 20]."

6. The air quality analysis of the Selected Alternative in Chapter IV, Environmental Consequences, incorrectly identifies a total of 38 campsites and campfire rings at Camp 4 under Alternative 1. This text is modified to correctly represent 37 campsites and campfire rings at Camp 4. This modification does not result in changes to the impact analysis.

Page IV-61, **Nonvehicle Operational Emissions**, the following sentence is modified.

> "Although the total campsites at Camp 4 would be expanded from 37 to 65, there would be only one fire ring for every two campsites (33 campsite fire rings, in total), compared to the existing 37 fire rings at Camp 4 [Public Concern 21]."

7. The Visitor Experience analysis of the Selected Alternative in Chapter IV, Environmental Consequences, did not identify that the moderate to major beneficial impact related to orientation and interpretation is tiered from the *Yosemite Valley Plan*.

Page IV-80, Orientation and Interpretation Effects, the following paragraph replaces the third paragraph on this page.

> "Overall, Alternative 2 would result in a local and regional, long-term, moderate to major, beneficial impact compared to Alternative 1, due to the increase in orientation and interpretation opportunities. The *Final Yosemite Valley Plan/SEIS* analyzed and disclosed these moderate to major beneficial orientation and interpretation impacts."

8. The Visitor Experience analysis of the Selected Alternative in Chapter IV, Environmental Consequences, incorrectly identifies the intensity of the Visitor Services impacts as moderate to major and beneficial. The beneficial visitor services effects associated with improved visitor service facilities under Alternative 2 will be moderate and beneficial. Improvements to visitor services in the Yosemite Lodge project area will change the desired experience appreciably (i.e., beneficially change one or more critical characteristics, or appreciably increase the number of participants). The following changes correct the analysis in the environmental assessment.

Page II-107, in table II-2, Summary of Environmental Consequences, under the discussion of visitor services effects, the following sentence replaces the last sentence in the second paragraph of the second column on this page.

> "Overall, Alternative 2 would result in a local and regional, long-term, moderate, beneficial impact compared to Alternative 1, due to improvements to visitor services in the project area and provision of the new Indian Cultural Center."

Page IV-81, Visitor Services Effects, the following paragraph replaces the last paragraph on this page.

> "Overall, Alternative 2 would result in a local and regional, long-term, moderate, beneficial impact compared to Alternative 1, due to improvements to visitor services in the project area and provision of the new Indian Cultural Center."

Page IV-82, Visitor Services Effects, the following paragraph replaces the first paragraph on this page.

> "**Impact Significance After Mitigation Included in the Project.** Local and regional, long-term, moderate, beneficial impact."

Page IV-83, Visitor Services Effects, the following sentence replaces the last sentence in the second paragraph on this page.

> "Overall, Alternative 2 would result in a local and regional, long-term, moderate, beneficial impact compared to Alternative 1, due to improvements to visitor services in the project area and provision of the new Indian Cultural Center."

9. **The socioeconomics analysis of the Selected Alternative in Chapter IV, Environmental Consequences, incorrectly identifies a per campsite cost of $18 per campsite instead of a per campsite cost of $20 per campsite (based on a conservative estimate of 4 individuals per campsite and a $5 charge per individual) when estimating socioeconomic benefits to the regional economy. This text is modified to correctly represent a conservative cost of $20 per campsite at Camp 4. This modification does not result in changes to the overall estimate of approximately $1.14 million per year in additional visitor spending associated with the Selected Alternative, and therefore does not result in modifications to the impact analysis.**

Page IV-85 and IV-86, **Operation-related Effects on the Regional Economy**, the following sentences in the fourth paragraph of this section are modified.

> "Given a conservative average of four campers per campsite and a cost of $20 per campsite, average daily camper spending would be $40.30 per day. The projected additional 17,200 overnight stays at Camp 4 would generate $701,000 annually."

In addition, the Selected Alternative does not propose a substantial increase in overnight stays in the Yosemite Valley segment of the Merced River corridor. As noted on page IV-85 of the environmental assessment, the proposed 6 additional Yosemite Lodge units will have a 92% occupancy rate, resulting in 2,100 additional room-nights and the proposed 25 additional campsites within Yosemite Valley will have an average occupancy rate of 95% between mid-April and mid-October, which will result in 4,300 additional camp-nights.

Based on pre-1997 flood accommodation numbers in the Yosemite Lodge area of 495 lodging units, 291 employee beds, and 37 camp sites, Yosemite Lodge and Camp 4 accommodated 166,200 room-nights, 106,200 employee room-nights, and 6,300 camp-nights. The additional 2,100 room nights comprise less than 1% of pre-flood accommodation numbers, and the 4,300 additional camp-nights comprise 68% of pre-flood numbers. Based on existing Yosemite Lodge accommodations, 245 lodging units result in approximately 82,300 room-nights. The proposed additional 6 lodging units comprise approximately 2% of room-nights compared to existing conditions.

Although the Selected Alternative will increase the number of lodging units by 6 and the number of camping spaces by 28 (including 3 Search and Rescue camp sites), once the *Yosemite Valley Plan* is fully implemented there will be a net reduction in overnight accommodations in Yosemite Valley. Although the number of camp sites will increase from 475 to 500 camp sites in Yosemite Valley, the number of lodging units will be reduced by 299 units in the Valley. Overall, implementation of the *Yosemite Valley Plan* will not lead to increases in overnight use on a segment-wide basis because the *Yosemite Valley Plan* prescribes an overall reduction in lodging, employee housing, and the built environment, and it provides for the restoration of highly valued resource areas.

10. Commentors note that natural-appearing fencing should be installed around Camp 4.

The National Park Service would revegetate the Camp 4 area. As identified in Chapter II, Alternatives, of the Environmental Assessment, revegetation efforts would include re-establishing and enhancing existing and historic vegetation communities using an applied ecological approach to revegetation that emulates natural vegetation succession, native plant community structure, and species composition.

On page C-2, **Vegetation,** the following text has been added following the fourth bullet:

> "Temporarily install post and rope fencing around the Camp 4 revegetation effort to ensure the success of the revegetation plantings. Subsequent to the successful establishment of the vegetative community, the temporary fencing would be removed. [Public Concern 47]."

11. The National Park Service clarified the appropriate survey window for special-status species of invertebrates analyzed in the environmental assessment.

The National Park Service clarified the appropriate survey window for special-status species invertebrates analyzed in the environmental assessment, including Sierra pygmy grasshopper and Mariposa sideband snail, as noted below.

On page C-5, **Special-Status Species of Invertebrates,** the following text has been added following the sixth full bullet on this page:

> "An appropriate survey window for the Sierra pygmy grasshopper would be June to August. An appropriate survey window for the Mariposa sideband snail would be May to June."

12. Based upon best available information resulting from design development review, the National Park Service has revised the number for trees to be removed under the Selected Alternative from approximately 1,059 trees to approximately 1,200 trees (see the table below).

The number of trees to be removed has been modified in an effort to avoid removing oak trees, which are considered highly valued resources, that are greater than 21 inches in diameter. The number of oak trees proposed for removal with a diameter greater than 21 inches has been reduced from 13 trees to 10 trees. As a result, mostly small pines, cedars, and miscellaneous trees would be removed to avoid removal of oak trees. In addition, more detailed site design information provided refined estimates of the number of trees required for removal to implement the Selected Alternative. This modification to the number of trees proposed for removal does not result in changes to the impact analysis.

As noted on page IV-11 of the environmental assessment, the extent of upland developed tree communities in the project area is unnaturally large due to the lack of fire and modified hydrology, which has resulted in the encroachment of conifers into former meadows, riparian areas, and California black oak woodlands. Unnaturally dense stands of conifers dry out soils and woody debris and duff accumulate, gradually raising and drying the underlying substrate over time. The dense stands of incense-cedar and ponderosa pine contribute to the spread of annosus root rot throughout the project area (see figure III-1 in the environmental assessment), leading to tree mortality or morbidity.

On page B-3 in Appendix B, Tree Management, the table below replaces the table on this page of the environmental assessment.

Comments not requiring Changes to the Text of the Environmental Assessment

13. Commentors requested that the National Park Service provide additional information on the "national park lodge experience" identified in the Purpose of the Action section of the environmental assessment on page I-6.

As noted in Chapter 2, Alternatives, of the *Final Yosemite Valley Plan/SEIS*, the character of Yosemite Lodge would be changed from a motel-type experience to one more connected to the national park experience and Yosemite Valley. This would be accomplished through replacement of some motel buildings with smaller units and the design of facilities to enhance connections between interior spaces and the outdoors. Traffic circulation would be shifted to the south of Yosemite Lodge to reduce congestion at the Yosemite Falls/Yosemite Lodge intersection. Parking for Yosemite Lodge would be located on the periphery of the Yosemite Lodge complex.

As noted on page II-18, **Refurbishment of Lodge Facilities,** the design of Yosemite Lodge would harmonize with the surrounding landscape and would be placed in and among the trees or at the edges of meadows to preserve natural open spaces. The architectural style would make use of traditional National Park Service rustic and historic design elements. The setting for guest quarters would be more quiet and restful than that of the public buildings. All guest rooms would have an outdoor seating area, such as a covered porch, patio, or balcony. Visitors would have opportunities to experience and appreciate the natural surroundings. Wherever possible, guest

Yosemite Lodge Area Redevelopment
Selected Alternative Tree Management

TREES	Existing Conditions	Trees to be Removed					Trees to Remain
		Development	Hazard	View Corridor	Forest Management	SUBTOTAL	
Oaks							
DBH: 6" - 20"	462	32	1	0	0	33	429
DBH: 21" - 30"	149	5	2	0	0	7	142
DBH: >31"	83	1	2	0	0	3	80
Subtotal	**694**	**38**	**5**	**0**	**0**	**43**	**651**
Maples							
DBH: 6" - 20"	86	38	0	0	0	38	48
DBH: 21" - 30"	1	0	0	0	0	0	1
DBH: >31"	0	0	0	0	0	0	0
Subtotal	87	38	0	0	0	38	49
Pines							
DBH: 6" - 20"	597	88	0	0	25	113	484
DBH: 21" - 30"	251	21	0	0	0	21	230
DBH: >31"	504	53	3	0	0	56	448
Subtotal	**1,352**	**162**	**3**	**0**	**25**	**190**	**1,162**
Cedars							
DBH: 6" - 20"	1,222	223	5	0	250	478	744
DBH: 21" - 30"	452	77	1	0	0	78	374
DBH: >31"	402	66	2	5	0	73	329
Subtotal	**2,076**	**366**	**8**	**5**	**250**	**629**	**1,447**
Firs							
DBH: 6" - 20"	49	13	0	0	2	15	34
DBH: 21" - 30"	12	0	0	0	0	0	12
DBH: >31"	2	0	0	0	0	0	2
Subtotal	**63**	**13**	**0**	**0**	**2**	**15**	**48**
Miscellaneous Trees							
DBH: 6" - 20"	363	98	1	0	17	116	247
DBH: 21" - 30"	19	0	0	0	0	0	19
DBH: >31"	8	1	0	0	0	1	7
Subtotal	390	99	1	0	17	117	273
TOTAL	**4,662**	**716**	**17**	**5**	**294**	**1,032**	**3,630**
Adjustments	-	-	6	100	-	106	
GRAND TOTAL	**4,662**					**1,138**	**3,524**

quarters would be sited to take advantage of natural light and views. No changes to the environmental assessment are necessary.

14. Commentors requested that restoration plans be hastened to not interfere with later construction phases.

The National Park Service determined the restoration phasing schedule for the Yosemite Lodge Area Redevelopment based upon when funding would be available for this project component. Given current funding projections, restoration efforts would be conducted from approximately fall 2008 through fall 2010. If restoration funding becomes available sooner, the National Park Service would undertake restoration activities at that time. In addition see response to item number 5, above [Public Concern 99].

15. Commentors noted that the Yosemite Lodge Area Redevelopment should comply with the Clean Water Act's permitting guidelines, including identification of whether a Clean Water Act Section 404 Nationwide Permit or an individual permit is required.

On page VI-4, **U.S. Army Corps of Engineers**, the National Park Service identifies that the proposed project activities in waters of the U.S. would require a Section 404 Nationwide Permit under the Clean Water Act. No modification to the environmental assessment is warranted.

16. Commentors request that the Yosemite Lodge Area Redevelopment preserve wildlife corridors. Commentors indicate that since existing Northside Drive would be moved very close to the Merced River, this would create many significant new impacts: Wildlife corridors would be disrupted as well the flow of the river's water processes, and the riparian zone.

In Chapter IV, Environmental Consequences, of the environmental assessment, the National Park Service analyzes the impacts of the proposed realignment of Northside Drive on the Merced River floodplain, water quality, and biological resources. Table 1-1, Impact/Mitigation Matrix, in the Finding of No Significant Impact includes mitigation measures to ensure that adverse impacts to hydrologic and biologic resources are lessened to the extent feasible.

As identified in Chapter IV, Environmental Consequences, development of new lodging at Yosemite Lodge, the expansion of Camp 4, and the creation of the Indian Cultural Center will continue to fragment wildlife habitat and increase human presence in currently disturbed areas as well as in some adjacent undisturbed areas. Realigned Northside Drive will fragment upland habitat and subject wildlife to traffic noise, lights, and moving vehicles. However, in the long term, restoration and revegetation of the project site will have a beneficial effect on wildlife and highly valued resources, which include the river ecosystem and riparian communities associated with the Merced River. Modification of Northside Drive to a multi-use paved trail will reduce traffic disturbance to upland habitats and wildlife north of Yosemite Lodge. In addition, removal of the diversion dam near Yosemite Creek will benefit aquatic wildlife by restoring the natural hydrology of the area. The beneficial effects on wildlife and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek will somewhat offset but not reduce the intensity of the adverse construction- and operation-related impacts associated with the Selected Alternative. Overall, the Selected Alternative will have a local, long-term, moderate, adverse effect on wildlife. The National Park Service disagrees with the commentor that these impacts would be “significant.”

In Chapter V, Merced Wild and Scenic River, the National Park Service analyzes the consistency of the proposed action with the *Merced Wild and Scenic River Comprehensive Management Plan*. The National Park Service concludes that the proposed action would be consistent with the boundary, classification, River Protection Overlay, and management zoning. Realigned Northside Drive would not be located within the River Protection Overlay. In addition, the National Park Service concludes that the proposed action would protect and enhance the scientific, scenic, recreation, biological, and hydrologic processes Outstandingly Remarkable Values in the project area; on a segmentwide basis, the proposed action would have no net effect on these Outstandingly Remarkable Values. The proposed action would have no effect on the geologic processes/conditions Outstandingly Remarkable Value, and no net effect on the cultural Outstandingly Remarkable Value for the Valley segment.

Yosemite Lodge facilities, lodging units, and multi-use paths are currently located between the existing Northside Drive and the Merced River. Under the Preferred Alternative, realigned Northside Drive would be located primarily within areas that are currently occupied by existing buildings and structures in an area characterized as an urban wildlife habitat type. Removal of the diversion dam near Yosemite Creek, removal of Lodge facilities and lodging units from the Merced River 100-year floodplain, and riparian and meadow restoration between Yosemite Lodge and the Merced River would benefit aquatic and terrestrial wildlife by restoring riparian and meadow wildlife habitat and the natural hydrology of the area. These activities would protect and enhance the Merced River's Outstandingly Remarkable Values. No changes to the environmental assessment are necessary.

17. Commentors request that the National Park Service should delay the relocation of Northside Drive, and not close Northside Drive west of Yosemite Lodge.

The issue of realigning Northside Drive, raised by this concern, already has been decided by the approved *Yosemite Valley Plan*, and therefore is outside the scope of this tiered environmental review document. As stated in the *Yosemite Valley Plan*, Northside Drive is being realigned for several reasons: to eliminate the physical barrier between Yosemite Lodge and Lower Yosemite Falls, to eliminate conflicts between pedestrians and vehicles at the Lodge/Falls intersection, to help in changing the character of Yosemite Lodge from one dominated by cars and parking to one that is pedestrian-friendly, and to provide more efficient circulation and parking in the Yosemite Lodge and Camp 4 area. Improvements underway for the Yosemite Falls area include improved pedestrian circulation, and removal of the Lower Yosemite Falls parking lot and road through this area, which would allow pedestrian access to be dispersed among a variety of paths, rather than concentrated at one crossing. A pedestrian overpass would not be appropriate because of adverse visual and aesthetic impacts.

Closure of Northside Drive west of the Lodge as a through road, and redirecting traffic to a two way Southside Drive, as identified in the *Yosemite Valley Plan*, is not proposed as part of the Yosemite Lodge Area Redevelopment. Including this alternative action as part of the Yosemite Lodge Area Redevelopment was considered but dismissed by the National Park Service because that action is not feasible without implementation of a traveler information and traffic management system. The termination of Northside Drive as a through road is closely tied with larger Yosemite Valley transportation planning issues (e.g., consolidation of day visitor parking in Yosemite Valley and three out of-Valley parking areas, expansion of the shuttle bus operation, and conversion of Southside Drive to a two way road). The traveler information and traffic management system project identified in the *Yosemite Valley Plan* will address these

transportation planning issues, and the termination of Northside Drive at Yosemite Lodge will be included among them. No changes to the environmental assessment are necessary.

18. **Commentors noted that aspects of Alternative 3 should be included in Alternative 2, including the smaller capacity amphitheater at the Lodge and individual fire rings at Camp 4.**

After deliberation, the National Park Service selected the 300 to 350 person capacity amphitheater at the proposed new location because it enables the National Park Service to accommodate larger groups at interpretive talks, host additional evening programs, and improve interpretive programs for Yosemite visitors. The National Park Service decided to provide one fire ring for every two campsites at Camp 4 to reduce the adverse air quality effects associated with smoke from individual fire rings at expanded Camp 4. No changes to the environmental assessment are necessary.

19. **Commentors note that the National Park Service should establish a climbing display building at Camp 4.**

As noted in the Finding of No Significant Impact, the National Park Service included the establishment of a climbing display building in the Yosemite Lodge Area Redevelopment. The National Register historic designation supports the interpretation of climbing history at Camp 4. The proposed climbing display building would assist the National Park Service in interpreting the importance of the rock climbing history of Yosemite National Park. No changes to the environmental assessment are necessary.

20. **In design development, the National Park Service made three minor alignment modifications to the existing multi-use path south of realigned Northside Drive to move these short path segments so that they are a minimum of twelve feet from Northside Drive to protect public health and safety. This modification does not result in changes to the impact analysis.**

Yosemite National Park

Lead Agency: National Park Service

Floodplain and Wetland Statement of Findings

Recommended

Superintendent, Yosemite National Park — Date: 10/29/03

Concurrence:

for Regional Safety Officer — Robert M. Seely — Date: 11/6/03

Certification of Technical Adequacy and Servicewide Consistency:

Acting Chief, Water Resources Division — Date: 11/13/03

Approved:

Director, Pacific West Region, National Park Service — Date: 2/13/04

Purpose of this Statement of Findings

The purpose of this Floodplain and Wetland Statement of Findings is to review the Yosemite Lodge Area Redevelopment in sufficient detail to:

- Avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative
- Describe the effects on floodplain and wetland values associated with the proposed action
- Provide a thorough description and evaluation of mitigation measures developed to achieve compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), National Park Service Director's Order 77-2 and Procedural Manual 77-2: Floodplain Management and National Park Service Director's Order 77-1 and Procedural Manual 77-1: Wetland Protection
- Avoid the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains to the extent possible and restore, when practicable, natural floodplain values previously affected by land use activities within floodplains
- Ensure "no net loss" of wetland functions or values

Affected Floodplain

Floodplain Extent

The 100-year floodplain is the area that water inundates during a 100-year flood, or the annual peak flow that has a 1% chance of being equaled or exceeded in any given year. Following the January 1997 flood, National Park Service staff mapped the actual extent of the flood inundation in Yosemite Valley and the U.S. Geological Survey determined actual flood flow rates at the Pohono and Happy Isles gauging stations. These data were used to calibrate the flood frequency analysis (i.e., the predicted flow rate of a 100-year flood) and the flood inundation models (i.e., the predicted area that will be inundated by a 100-year flood) for Yosemite Valley.

General Flooding Characteristics

The character of the floodplain varies in different locations in Yosemite Valley due to local hydraulic controls. As a tool to understand why different portions of the Merced River in Yosemite Valley reacted differently to the 1997 flood, a study divided the river into five reaches with similar geology and hydrology. Reaches 1 and 2 extend upstream from El Portal to the El Capitan Moraine. Reach 3 extends upstream from the El Capitan Moraine to Housekeeping Camp, and Reaches 4 and 5 extend upstream from Housekeeping Camp to the narrow reaches of Tenaya Creek and the upper Merced River. In Reach 3, the central chamber of Yosemite Valley, flood waters become impounded behind the El Capitan Moraine, which acts as a "check dam" during flood events and is the hydraulic control for this reach. During floods, flow velocities in this reach are low due to the increased depth and area of the water impounded behind the moraine. Upstream and downstream of Reach 3, the Valley is steeper and more constricted, and these areas are subject to higher velocity flood flows.

Description of Site-Specific Flood Risk

Developed areas of Yosemite Lodge have been periodically subject to flooding. Following a flood in 1950, the National Park Service placed earthen fill to raise some cabins at Yosemite Lodge about two and a half feet (from an elevation of 3,956.5 feet to 3,959 feet). In 1951, the Yosemite Park and Curry Company requested that the National Park Service place extensive riprap and construct a dike along Yosemite Creek to protect Yosemite Lodge from flooding. However, the National Park Service decided that construction of a dike along the flat valley floor was impractical and contrary to management policies.

Throughout Yosemite Valley, there are examples of flow diversion structures installed to manipulate river flows to prevent flooding and protect facilities. One such diversion, located at the confluence of Yosemite Creek and the Merced River, was installed to divert high flood flows through an overflow channel and away from guest lodging units in the lower portion of the Yosemite Lodge Area Redevelopment site. Referred to as a diversion dam, this man-made structure is constructed with rock and soil along the northern river bank to a height capable of diverting high flows. The presence of this structure may have assisted to reduce flood damage during the January 1997 flood.

Following the 1997 flood, the National Park Service determined that a number of Yosemite Lodge cabins were located within the 10-, 20-, 50-, and 100-year floodplains. Many of these structures were irreparably damaged and subsequently removed.

In an analysis of hydrologic, hydraulic, and geomorphic attributes of the 1997 flood, investigators found “few readily observable changes to the river channel, floodplain, or riparian vegetation in this reach.” The analysis concluded that impacts to infrastructure stemmed primarily from inundation and rafting of unsecured floatable objects. For structures such as bridges and roads, there was “very little consequence stemming from inundation in the absence of significant velocity.” Investigators also noted that “even floating trees and other large woody debris caused no significant damage to bridges because flow velocities were so low. In general and for the same reason, buildings also realized little structural damage from flowing water or debris.”

This finding is consistent with a 1937 flood damage report cited by Milestone that “a remarkable feature of the storm was that the greatest damage resulted from effects of high water on the things that man had constructed rather than violent changes to the physical features.”

Existing Structures in Floodplain

Since the 1997 flood, the visitor cabins, two multi-unit cottages, employee housing, and several other structures have been removed from the 100-year floodplain at Yosemite Lodge. Most of the remaining structures in the 100-year floodplain in the project area are Class I actions. These include four motel-type buildings (Maple, Alder, Hemlock, and Juniper), an employee Wellness Center, Yosemite Lodge housekeeping facilities, several small structures near Tamarack Cottage, a section of Northside Drive west of Yosemite Creek Bridge, Yosemite Creek Bridge and Yosemite Creek Pedestrian/Bicycle Bridge, Yosemite Lodge roadways, and utilities. Utilities within the 100-year floodplain include three groundwater wells that provide drinking water in the Valley, the Yosemite Creek wastewater lift station, and sewer, water, and electric lines.

Affected Wetlands

Wetland Extent

Regionally, wetlands[1] and deepwater habitats in Yosemite Valley cover 996 acres, including riverine and palustrine habitat. Wetlands and deepwater habitats within the project area consist of a total of 16.28 acres of riverine and palustrine wetlands. A wetland survey of the project site was completed to delineate and identify Cowardin wetlands and waters of the United States. Numerous wetlands cover the floodplain south of the existing multi-use paved trail.

Wetland Characteristics

Biotic Value

Wetlands within the project area are broadly classified as riparian in nature and include aquatic, riparian, and floodplain communities. Specific wetland classes identified within the project area are limited to the following:

- *Riverine upper perennial* – main channel of the Yosemite Creek, which flows along the east side of the project site, descends precipitously to the Valley via upper and lower Yosemite Falls and proceeds south through the alluvial fan at the base of the fall to its confluence with the Merced River southeast of Yosemite Lodge
- *Riverine intermittent streambed* – several unvegetated streams (or sparsely vegetated with grasses), which contribute streamflow maintenance, water supply, erosion control, sediment retention and detrital export to downstream systems, are located throughout the project area with nonsoil substrates that are saturated and/or covered by shallow water at some time during the growing season
- *Palustrine forested* – riparian forest habitat (e.g., white alder riparian forest, oxbow and cutoff channel) along the Merced River and/or Yosemite Creek subject to various flooding regimes within the project area
- *Palustrine scrub shrub* – riparian scrub (e.g., willow) habitat in the floodplain subject to various flooding regimes within the project area
- *Palustrine emergent* – riparian emergent (e.g., herbaceous species such as sedges and rushes) habitat along Merced River and Yosemite Creek subject to various flooding regimes within the project area

The size of wetlands in the floodplain is diminishing due to encroachment by conifers, resulting in habitat conversion similar to upland habitat. The integrity of palustrine emergent wetlands is degrading due to introduction and spread of non-native plant species and conifer encroachment. Heavy recreation-related foot traffic and trampling on ill-defined trails is degrading and fragmenting wetlands in the floodplain and at Camp 4. Large areas of overhanging riparian vegetation along riverine intermittent streambeds at Camp 4, Yosemite Creek, and the Merced River within the project area are absent, resulting in a lack of nutrients, organic matter, and shade to riverine systems. Wetland connectivity is being compromised in the project area. Roads, structures, utilities, and water diversions are compromising the connectivity between the Merced

[1] Consistent with National Park Service Procedural Manual 77-1: Wetland Protection, wetlands herein are described using the Cowardin classification system.

River and upland habitats. The flow across the floodplain south of Yosemite Lodge is blocked by a diversion dam. This action has substantially altered river morphology at the confluence of Yosemite Creek and Merced River, desiccated floodplain soils, and encouraged conifer and non-native plant invasion.

Vegetation[2]

Upland areas within the 100-year floodplain support developed open area-sparse vegetation (where primarily ponderosa pine and incense-cedar are present), ponderosa pine forest, impacted conifer corridor, and conifer corridor. These communities have undergone alterations through changes in fire frequency, spread of fungus root rot, and establishment of non-native species. Incense-cedar and ponderosa pine form unnaturally large stands due to lack of fire and modified hydrology. As a result, conifers invade meadows, riparian areas, and oak woodlands.

Riparian areas in the floodplain are situated at the interface between terrestrial and aquatic ecosystems. These areas support sandbar willow woodland, dense cottonwood/willow forest, conifer corridor (primarily incense-cedar and ponderosa pine), and oxbow and cutoff channels. Typically, riparian vegetation is regularly disturbed by the deposition and removal of soil and the force of floodwaters, and readily colonizes newly formed river-edge deposits. However, because of the lack of fire and modified hydrology, conifers (primarily incense-cedar and ponderosa pine) have invaded riparian areas.

Riparian vegetation along riverine intermittent streambeds within the project area is absent, or only sparsely vegetated with a few grasses, resulting in a lack of nutrients, organic matter, and shade to riverine systems.

Meadow communities, including carex wet meadow and grass/sedge meadow, intergrade with riparian communities near the Merced River and Yosemite Creek within the project area. Many historic meadows have been converted to upland vegetation types or no longer exhibit meadow characteristics due to development. Because of the lack of fire, altered hydrologic conditions, and encroachment of conifers, meadows within the project area have been altered.

Wildlife

Riparian areas are also important foraging grounds for aerial and ground foraging insectivores such as *Myotis* bat species and pallid bats. Mammals such as western harvest mouse, deer mouse, western gray squirrel and raccoon also utilize streamside habitats for nesting and foraging. Raptors that breed and nest in riparian woodland communities include red-tailed hawk, sharp-shinned hawk, Cooper's hawk and others.

Seasonal aquatic habitat within Yosemite Creek provides drinking water for wildlife and may support breeding amphibians and insects. Fisheries resources within the Merced River and other drainages within the Yosemite Valley have historically been low in species diversity. Fish are unlikely to use Yosemite Creek to a significant extent, although the presence of a few riffles with appropriate gravel sizes may sometimes enable trout to spawn in Yosemite Creek during the spring. Smaller species such as riffle sculpin may occupy the channels late into the summer. Human disturbance has eliminated riparian and wetland vegetation along seasonal drainages

[2] Vegetation types are based on descriptions in the *Final Valley Plan/Supplemental Environmental Impact Statement* (National Park Service 2000a) and "The Plant Communities of Yosemite Valley — A Map and Descriptive Key" (National Park Service 1994). Refer to these documents for detailed descriptions of vegetation types in the project area.

located throughout Camp 4 and the proposed Indian Cultural Center site, and has altered the natural structure of these features, reducing their suitability for amphibians and fish.

Riverine intermittent streambeds provide a seasonal water source for wildlife, but they may not provide significant habitat or food because they lack vegetation.

Special-status Species

Special-status wildlife species known to occur or potentially occur in the riparian and meadow areas of the floodplain include bald eagle, Sierra pygmy grasshopper, Harlequin duck, rufous hummingbird, Cooper's hawk, sharp-shinned hawk, willow flycatcher and yellow warbler. Only foraging habitat for bald eagle and rufous hummingbird is present in the floodplain, all other species are known to or potentially breed in the floodplain.

Special-status plant species known or likely to occur in meadow vegetation of the floodplain include Rawson's flaming-trumpet, slender-stalked monkeyflower, Yosemite popcorn-flower, northern bedstraw, false pimpernel, and ladies' tresses.

Scenic, Cultural, Socioeconomic Values

In general, wetlands are considered aesthetically-pleasing natural features. Wetlands are culturally valuable due to their importance as potential gathering areas of traditional plants for American Indian groups. Culturally important plants are used as food, medicines, and traditional tools such as basketry. The seasonal water flow and lack of vegetation in the riverine intermittent streambeds limit the scenic and cultural value of these wetland habitats. There is no socioeconomic value associated with wetlands within the project area.

Existing Structures in Wetlands

Revetments (riprap and similar reinforcements) were installed along the banks of Yosemite Creek and the Merced River in attempts to limit erosion and the lateral migration of the stream channels. A diversion dam located near the confluence of Yosemite Creek and the Merced River restricts flow across the Merced River floodplain. It was designed to divert high flood flows through an overflow channel and away from guest lodging units in the lower portion of the Yosemite Lodge Area Redevelopment site.

Environmental Consequences of the Proposed Action on Floodplain and Wetlands

Floodplain

Impact to the Merced River Floodplain

Under the proposed action, guest lodging and lodge facility buildings would be removed from the portion of the Merced River 100-year floodplain located between the central lodge area and the Merced River, resulting in a local, long-term, minor, beneficial impact. Structures proposed or remaining in the floodplain include realigned Northside Drive, registration parking lot, a multi-use paved trail, lodge parking and roadways, overnight bus parking, and the sewage lift station. A major flood, such as the event that occurred in January 1997, is likely to occur again in the near

future. Upon removal of the guest lodging buildings (Hemlock, Maple, Alder, and Juniper), the maintenance buildings, Wellness Center and miscellaneous buildings, the 100-year floodplain would be restored to near-natural flow conditions because the major obstacles to high flood flows would be removed. The roads and parking lots proposed for this area under the proposed action could impact flood flows but these developments would not be expected to substantially alter the flow path of the flood waters because they would have low relief and would not be constructed on an embankment. The proposed action would improve the conditions of the 100-year floodplain by removing the major flow impediments, including guest lodging and maintenance buildings.

Impacts of Man-made Flow Diversions

The diversion dam located near the confluence of Yosemite Creek and the Merced River is constructed of rock and soil along the northern river bank to a height capable of diverting high flows. Under the proposed action, this flow diversion would be removed to restore the natural flood flows of the Merced River within this reach. Once removed, high flood flows in the Merced River would be unimpeded to inundate portions of the floodplain not previously possible due to the presence of the diversion dam. Removing the diversion dam would return the affected portion of the floodplain to a more natural flow condition. Since the diversion dam was constructed to protect the lodging units closest to the Merced River from flooding and these units were removed subsequent to the 1997 flood, removal of the diversion dam would not introduce a new flood hazard because the proposed action would remove the remaining lodging units within the 100-year floodplain. The removal of the diversion dam structure = would help return the Merced River 100-year floodplain to near-natural free-flow conditions and therefore would be a beneficial impact.

Additionally under the proposed action, the rip-rap revetment currently in the overflow channels near Yosemite Creek would be removed to restore the natural flow regime along Yosemite Creek. As the affected reach is relatively short, the impacts to the creek by the removal may only be realized locally and therefore, the impact of the revetment removal is considered local, long-term, minor, and beneficial.

Impacts of Drainages and Impervious Surfaces in Floodplain

Under existing conditions, 6% of the 100-year floodplain is covered with impervious surface areas. Under the proposed action, the impervious surface area increases to 11%. Under existing conditions, there is 4% semipervious area within the 100-year floodplain. The semipervious area would be reduced to less than 1% under the proposed action. The increases in impervious floodplain surface area could be realized as reduced lateral underflow of groundwater to wetlands, localized water level decreases in the shallow water table, or increased overland flow of storm water flows. Storm water flow increases could also lead to increased surface soil erosion. Impacts of drainages and impervious surfaces in the floodplain would be local, long-term, minor, adverse impact.

Wetlands

Construction-related Effects on Wetlands

The size, integrity and connectivity of wetlands (i.e., riverine intermittent streambeds) at the Yosemite Lodge Area Redevelopment site would slightly diminish in the project area due to construction during Phases 1 and 2 of construction, resulting in a local, short-term, moderate, adverse impact. During Phases 1 and 2 of construction, a cumulative total of 0.43 acre of wetlands (specifically, riverine intermittent streambed) would be adversely affected by construction activities due to installation and removal of utilities and development of project facilities, including parking areas, roadways, and trails (i.e., multi-use, pedestrian and stock/pedestrian trails) (see figure 2-1). The total length of disturbance includes the footprint of development and additional area to include adjacent disturbance associated with the construction work limits. Construction disturbance limits would be approximately 7.5 feet on either side of proposed development, including roadways, parking areas, multi-use trails, and approximately 5 feet on either side of proposed pedestrian trails and stock/pedestrian trails. The proposed action would affect riverine intermittent streambeds.

To lessen the intensity of adverse impacts on wetlands, utilities would be installed using jack-and-bore construction techniques. To avoid impacts in other sensitive areas, some underground utility lines would be abandoned in place. Appropriately-sized culverts would be installed to accommodate flow, and riverine intermittent streambeds would be crossed using combinations of riprap, culverts, and channel lining to lessen the intensity of erosion and sedimentation.

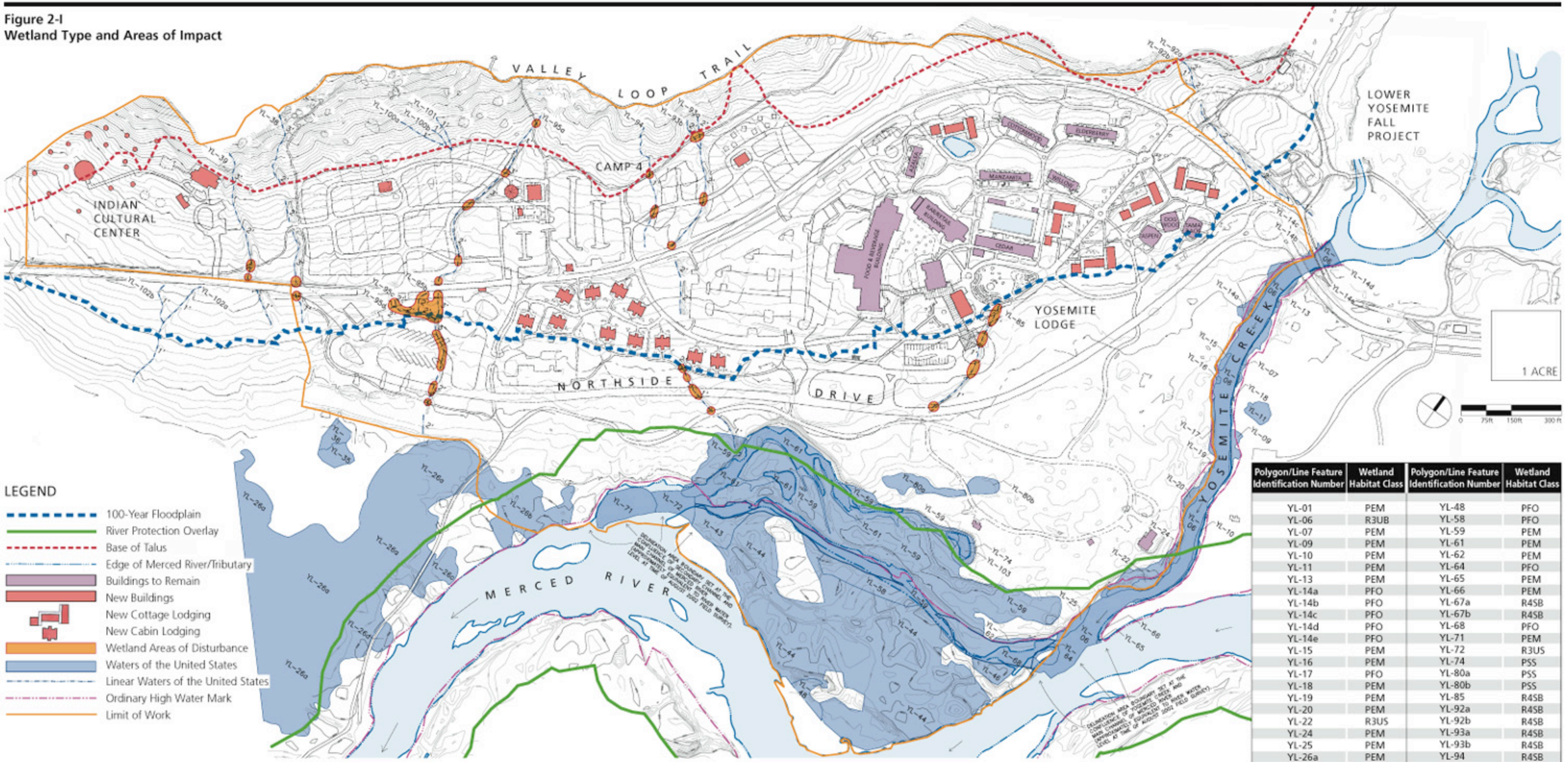
With implementation of mitigation measures the intensity of the adverse effects on wetlands would be reduced to minor, resulting in a local, long-term but temporary adverse impact. As described in table 1-1, Impact/Mitigation Matrix, measures that would protect wetlands during construction activities and minimize eroding soils during construction activities include, but is not limited to, spill prevention and pollution control measures, utilization of wetland protection and compensation measures such as installing protective fencing material to protect wetlands from construction activities, using silt fencing to reduce erosion, working in wetlands during the low-flow season, avoiding wetlands to the extent feasible, and restoring habitats at a 1 to 1 ratio based on the acreage of wetlands disturbed.

Enhancement-related Effects on Wetlands

Under the proposed action, project effects on wetlands would moderately improve in the long-term following implementation of restoration actions. These actions would result in a local, long-term, negligible to minor, beneficial impact.

As part of the restoration effort, revetments and a diversion dam in the overflow channels near Yosemite Creek would be removed to restore overland flow across the Merced River floodplain. The National Park Service would revegetate denuded banks at and downstream of the confluence of Yosemite Creek and the Merced River, eradicate exotic plants, and reestablish a more natural stand of riparian forest and oak woodland on the floodplain. Removal activities of revetments and the diversion dam could dislodge sediments into the creek, resulting in bank erosion, increased turbidity, adverse effects on aquatic species and decrease in water quality. These effects would be considered moderately adverse in the short-term. Implementation of mitigation measures (including, but not limited to, implementing spill prevention and pollution control measures,

Figure 2-I
Wetland Type and Areas of Impact



Polygon/Line Feature Identification Number	Wetland Habitat Class	Polygon/Line Feature Identification Number	Wetland Habitat Class
YL-01	PEM	YL-48	PFO
YL-06	R3UB	YL-58	PFO
YL-07	PEM	YL-59	PEM
YL-09	PEM	YL-61	PEM
YL-10	PEM	YL-62	PEM
YL-11	PEM	YL-64	PFO
YL-13	PEM	YL-65	PEM
YL-14a	PFO	YL-66	PEM
YL-14b	PFO	YL-67a	R4SB
YL-14c	PFO	YL-67b	R4SB
YL-14d	PFO	YL-68	PFO
YL-14e	PFO	YL-71	PEM
YL-15	PEM	YL-72	R3US
YL-16	PEM	YL-74	PSS
YL-17	PFO	YL-80a	PSS
YL-18	PEM	YL-80b	PSS
YL-19	PEM	YL-85	R4SB
YL-20	PEM	YL-92a	R4SB
YL-22	R3US	YL-92b	R4SB
YL-24	PEM	YL-93a	R4SB
YL-25	PEM	YL-93b	R4SB
YL-26a	PEM	YL-94	R4SB
YL-26b	PEM	YL-95a	R4SB
YL-26c	PEM	YL-95b	R4SB
YL-26d	PEM	YL-95c	R4SB
YL-35	PEM	YL-95d	R4SB
YL-36	PSS	YL-100a	R4SB
YL-38	R4SB	YL-100b	R4SB
YL-39	R4SB	YL-101	R4SB
YL-43	PFO	YL-102a	R4SB
YL-44	PEM	YL-102b	R4SB
YL-46	PEM	YL-103	PUB

Wetlands Types

PEM	Palustrine Emergent Wetland
PFO	Palustrine Forested Wetland
PSS	Palustrine Scrub-Scrub Wetland
PUB	Palustrine Unconsolidated Bottom

Other Waters of the United States

R4SB	Riverine Intermittent Streambed
R3US	Riverine Upper Perennial Unconsolidated Shore
R3UB	Riverine Upper Perennial Unconsolidated Bottom

SOURCE: National Park Service, Jones and Stokes, and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

using silt fencing for erosion and sediment control, and working in wetlands during the low-flow season), as described in table 1-1, Impact/Mitigation Matrix, would reduce the intensity of these effects to negligible. As a result, the overall restoration efforts would improve wetland size, integrity, and connectivity within the project area.

The landscape of the Yosemite Lodge Area Redevelopment site, including most above-ground riverine intermittent streambeds, would be revegetated based upon the principles described in the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge*. This plan presents specifications for the collection and propagation of native plants, interim seeding during Phase 1 and 2, final seeding during Phase 3, planting, and landscape maintenance during the establishment period. Existing and historic vegetation communities would be re-established and enhanced within the project area using an applied ecological approach to revegetation.

Overall, with implementation of mitigation measures the effect of enhancement on wetlands would be a local, long-term, negligible to minor, beneficial impact.

Construction- and Operation-related Effects on Wildlife in Wetlands

Under the proposed action, an indirect adverse effect of the riparian and meadow restoration between Yosemite Lodge and the Merced River may increase water levels that could favor bullfrogs. An effort would be made to eradicate bullfrogs through an organized and consistent capture and killing program to mitigate this effect resulting in a minor, adverse impact.

In the long term, restoration and revegetation of the Yosemite Lodge Area Redevelopment site would have a beneficial effect on wildlife and highly valued resources, which include the Merced River ecosystem and riparian communities associated with the Merced River. In the Sierra Nevada, more species and greater numbers of wildlife are found in riparian habitats than in any other habitat. Species that rely on diversity and connectivity of habitats, such as black phoebes, Cooper's hawks, and Pacific tree frogs would benefit from these activities, although much of these areas would continue to be affected by the adjacent human use and the realignment of Northside Drive. In addition, removal of the diversion dam near Yosemite Creek would benefit aquatic wildlife by restoring the natural hydrology of the area. Overall, the proposed action would result in a local, long-term, negligible, beneficial impact to wildlife in wetlands and highly valued resources.

Construction- and Operation-related Effects on Special-status Wildlife Species in Wetlands

During Phase 1 of the proposed action, removal of trees or snags would adversely affect Cooper's hawk and sharp-shinned hawk breeding or foraging within the riparian areas of the floodplains. Bald eagle foraging would also be adversely affected during Phase 1. Construction activities, heavy equipment movement, and general activity and noise adjacent to active bird nests could result in the harassment of adults and loss of young, resulting in a readily apparent, moderate adverse impact.

Construction-related effects of Phase 3 removal of the diversion dam near Yosemite Creek and restoration and revegetation activities between Yosemite Lodge and the Merced River would involve small construction crews and less equipment than Phase 1 and Phase 2 activities. Phase 3 activities would be confined to seasonal disturbance. Human activity and construction noise could

result in nest abandonment or loss of young and reproductive potential, resulting in a readily apparent, adverse effect on yellow warbler and Harlequin duck. Although the Merced River riparian corridor provides low-quality habitat for willow flycatcher, this species has not been observed nesting in the Valley for 30 years and is not likely to be affected by Phase 3 activities.

The implementation of preconstruction surveys for breeding birds, potential nest monitoring, and other measures during all three phases of construction (see table 1-1, Impact/Mitigation Matrix) would reduce construction-related effects on special-status bird species. With mitigation, construction-related activities would have a local, long-term but temporary, negligible, adverse effect on special-status birds. Preconstruction surveys would identify any special-status bird species nesting within or adjacent to construction areas. Nest monitoring would ensure that activities with the potential to disturb nesting special-status bird species do not occur adjacent to active special-status bird species nests during the nesting season.

Operation-related effects of restoration and revegetation efforts, including restoration of hydrology in the Yosemite Creek and Merced River floodplain through removal of the diversion dam, would have a beneficial effect on special-status bird species in the long term. Although much of these areas would continue to be affected by adjacent human use and the rerouting of Northside Drive, restoration and revegetation efforts would have a beneficial effect on bald eagle, golden eagle, peregrine falcon, white-headed woodpecker, and rufous hummingbird foraging habitat and on riparian breeding habitat for Harlequin duck, willow flycatcher, and yellow warbler. Modification of Northside Drive to a multi-use paved trail would reduce traffic disturbance in upland habitats north of Yosemite Lodge. Exclusion of motor vehicles from Northside Drive would improve habitat quality for California spotted owls in areas adjacent to the road. Overall, operation of Alternative 2 would result in a local, long-term, negligible, beneficial impact to special-status bird species compared to Alternative 1.

Activities associated with Phase 3 restoration and revegetation of the Merced River riparian and meadow habitat would result in slightly detectable, short-term, minor, adverse effects on Sierra pygmy grasshopper through human and vehicle disturbance. Measures to prevent adverse effects on this species include preconstruction surveys to determine its presence in areas of suitable habitat along the Merced River and avoidance of occupied habitat. With mitigation measures, the proposed action would have a negligible to minor adverse effect on this species, due to avoidance of habitat that supports this species and prevention of disturbance to the species during construction. Restoration activities would have a negligible beneficial effect on the Sierra pygmy grasshopper through localized restoration of riparian habitat and the creation of suitable habitat for this species along the Merced River and Yosemite Creek.

Overall, the proposed action would result in a local, long-term, negligible, beneficial impact on special-status species in wetlands and highly valued resources.

Construction-related Effects on Special-status Plants in Wetlands

Special-status plant species known or likely to occur in the floodplain include Rawson's flaming-trumpet, slender-stalked monkeyflower, Yosemite popcorn-flower, northern bedstraw, false pimpernel, and ladies' tresses. Potential trampling associated with Phase 3 riparian and meadow restoration activities of the proposed action along the Merced River would result in slightly detectable, minor, adverse impacts to these species. Measures such as preconstruction surveys during the appropriate time of year and avoidance of special-status plant populations where

feasible (see table 1-1, Impact/Mitigation Matrix), would reduce adverse effects on special-status plant species. With the implementation of these measures, Alternative 2 would have a negligible to minor adverse effect on these vegetation species, due to avoidance of special-status plants and protection of special-status plants during construction.

Alternatives Considered

Alternatives considered in the *Yosemite Lodge Area Redevelopment Environmental Assessment* (Chapter II, Alternatives) include the Alternative 1 (No Action), Alternate 2 (Proposed Action) and Alternative 3.

Alternative 1 (No Action)

Alternative 1, the No Action Alternative, represents conditions and management practices as they currently exist at the Yosemite Lodge Area Redevelopment site. The No Action Alternative represents the status quo; the existing facilities would remain unchanged, except for normal maintenance and repair.

Alternative 2 (Proposed Action)

Alternative 2 would implement approved *Yosemite Valley Plan* actions for the Yosemite Lodge Area Redevelopment, including providing 251 lodging units and overnight parking spaces at Yosemite Lodge, providing 65 campsites and 195 parking spaces at Camp 4, relocating Northside Drive south of the Lodge, and converting existing Northside Drive to a multi-use paved trail. Consistent with the 1980 *General Management Plan*, Alternative 2 would develop an Indian Cultural Center at the site of the last-occupied Indian Village in Yosemite Valley, west of Camp 4.

The layout of the Lodge site under Alternative 2 would feature similar types of lodging units grouped together. The one-story cabin units would be clustered in the center of the Lodge site and the two-story cottages would be interspersed with existing two-story lodge buildings. This alternative features centralized parking with the largest parking lot at the Lodge located in the center of the site.

Alternative 2 would provide two small-scale viewing plazas along the proposed promenade, and the amphitheater would be relocated and expanded to a larger capacity (accommodating 300 to 350 individuals).

At Camp 4, Alternative 2 would provide a free-standing climbing display building, a cooking pavilion and gear storage lockers, and shared fire rings. Western Camp 4 would feature a renovated restroom building. A new restroom building would be located in the eastern area of Camp 4, and a new restroom and shower building would be located near Camp 4 parking.

Alternative 2 would develop an Indian Cultural Center at the site of the last-occupied Indian Village in Yosemite Valley. The Indian Cultural Center would include a ceremonial roundhouse, sweatlodge, 15 cedar bark umachas (houses), and a community building.

Site Restoration and Revegetation

Three areas on the Yosemite Lodge Area Redevelopment site are proposed to be restored, including the area between the proposed realignment of Northside Drive at Yosemite Lodge and the Merced River (the site of former Yosemite Lodge cabins, Pine Cottage, and employee housing), the area between the cabins and parking area on the Lodge site, and an area between Camp 4 and the Indian Cultural Center. Not including impervious and semipervious surfaces in the restoration areas, approximately 37.89 acres would be restored under the proposed action.

The restoration effort would remove the revetment and diversion dam near Yosemite Creek to restore overland flow across the Merced River floodplain. The National Park Service would revegetate the Merced River channel at and downstream of the confluence, eradicate non-native plants, and reestablish a more natural stand of riparian forest and oak woodland on the floodplain. Oak woodland rehabilitation would be encouraged through plantings of California black oak seedlings. As part of the restoration effort, the National Park Service would redirect visitor traffic around disturbed areas with fencing and interpretive signs, and decompact and revegetate inappropriate social trails and abandoned roads. The National Park Service would create riverbank access with a boardwalk between Yosemite Lodge and the Merced River's north bank sand bar to allow visitors access to the river without damaging the floodplain, wetlands, riparian communities, or the river banks.

Restoration activities would include eradicating non-native Himalayan blackberry invasion of the eastern portion of the Lodge site and non-native maple trees inhabiting the western portion of the Lodge site. Young conifer proliferation would be discouraged through groundwater alteration, social trail decompaction, and prescribed burns. National Park Service staff would conduct low-intensity prescribed burns to discourage conifer invasion and support rehabilitation of oak woodlands and riparian forests. The restoration effort would include conducting channel morphology, groundwater, and vegetation monitoring to document restoration changes and inform resource management efforts.

The landscape of the Yosemite Lodge Area Redevelopment site would be revegetated based upon the principles described in the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge*. Existing and historic vegetation communities would be re-established and enhanced within the project area using an applied ecological approach to revegetation. Revegetation and landscaping at the site would emulate natural vegetation succession, native community structure, and species composition. The diversity of the physical setting of the project area has historically determined the diversity of the vegetation communities found there. Revegetation activities would use this historic distribution as a model to guide the replanting of community-based assemblages of native plant species in their ecologically appropriate locations. Salvage vegetation would be used to the extent possible. A landscape management plan with monitoring component would be developed to ensure successful revegetation, maintain plantings, and replace unsuccessful plant materials. NPS would maintain the landscape as vegetation matures to maintain important view corridors of the site. The landscape would provide communal outdoor spaces that encourage visitors to experience the out-of-doors.

Alternative 3

Similar to Alternative 2, Alternative 3 would implement approved *Yosemite Valley Plan* actions for the Yosemite Lodge Area Redevelopment, including providing 251 lodging units and overnight parking spaces at Yosemite Lodge, providing 65 campsites and 195 parking spaces at Camp 4, relocating Northside Drive south of the Lodge, and converting existing Northside Drive to a multi-use paved trail. Consistent with the 1980 *General Management Plan*, Alternative 3 would develop an Indian Cultural Center at the site of the last-occupied Indian Village in Yosemite Valley, west of Camp 4.

Alternative 3 differs from Alternative 2 primarily in lodge site layout and the provision and location of Lodge and Camp 4 community facilities.

The layout of the Lodge site under Alternative 3 would feature a more uniform lodging unit layout than Alternative 2. Under Alternative 3, new one- and two-story buildings would be interspersed together on the Lodge site. Alternative 3 would feature a remote parking configuration with the largest parking lot at the Lodge located at the western end of the site.

Alternative 3 would provide one large-scale viewing plaza along the proposed promenade, and the amphitheater would be renovated in its current location and would retain its existing capacity (accommodating 150 to 200 individuals). Alternative 3 would provide rotating interior display space at the Lodge instead of a climbing display building at Camp 4, as proposed under Alternative 2.

Individual fire rings would be provided at Camp 4. Western Camp 4 would feature a renovated restroom building. New restroom and shower buildings would be located near the Camp 4 parking lot and in the eastern area of the campground.

As described under Alternative 2, Alternative 3 would develop an Indian Cultural Center at the site of the last-occupied Indian Village in Yosemite Valley. The Indian Cultural Center would include a ceremonial roundhouse, sweatlodge, 15 cedar bark umachas (houses), and a community building.

Site Restoration and Revegetation

Restoration efforts under Alternative 3 would be the same as described under the proposed action; however, approximately 37.31 acres would be restored under Alternative 3, not including impervious and semipervious surfaces in the restoration areas. The revegetation activities would the same as the proposed action.

Design or Modifications to Minimize Harm to the Floodplain and Wetlands

Although the proposed action has been designed to mitigate harmful effects to the floodplain and wetlands, the National Park Service (and its contractors) would implement mitigation measures, prior to, during and after construction, as appropriate. These mitigation measures are identified in table 1-1, Impact/Mitigation Matrix.

Proposed Compensation

Because the project would result in a net gain of restored wetland area and functional value, impacts to disturbed wetlands (0.43 acres of riverine intermittent streambed) would be compensated at a minimum 1 for 1 acreage basis as part of the proposed project restoration actions included in Phase 3 of project development. Wetland compensation will restore wetland habitat within the restoration area identified for this action in an area suitable for wetland restoration. Wetland compensation will include monitoring to ensure successful revegetation, maintenance of plantings, and replacement of unsuccessful plant materials. Restoration and revegetation under the proposed action would offset the adverse construction-related impacts and improve the connectivity, integrity and value of the floodplain and its associated wetlands in the project area.

Site-Specific Mitigation — Subsequent Statement of Findings Necessary

The Yosemite Lodge Area Redevelopment does not include any elements that would require preparation of subsequent Statement of Findings.

Justification

The proposed action would impact 0.43 acre of riverine intermittent streambed and Alternative 3 would impact 0.41 acre of the same wetland type. These impacts would be due to installation and removal of utilities and development of project facilities, including parking areas, roadways, and trails. Riverine intermittent streambeds have low functional value because of the lack of riparian vegetation, low habitat value for wildlife, and limited scenic and cultural value.

Although there are slight differences in the extent of wetland disturbance between the proposed action and Alternative 3, the proposed action was selected over Alternative 3 because of the preferred visitor experience elements associated with the proposed action, including the layout of lodging units and guest parking, the size and number of viewing plazas at the Lodge, the location and size of the Lodge outdoor amphitheater, and the provision of a climbing display building and cooking pavilion at Camp 4.

Non-Wetland Alternatives to the Proposed Action

The southern portion of the Yosemite Lodge Area Redevelopment is within the 100-year floodplain. The purpose of the Yosemite Lodge Area Redevelopment is to implement actions called for in the *General Management Plan* and *Yosemite Valley Plan*[3] for the Yosemite Lodge area. Actions described in the *Yosemite Valley Plan Record of Decision* were guided by the goals of the 1980 *General Management Plan* and the 2001 *Merced Wild and Scenic River Comprehensive Management Plan* (Merced River Plan). The specific purposes of the Yosemite Lodge Area Redevelopment reflect the purposes of the *Yosemite Valley Plan* (see *Final Yosemite Valley Plan/Supplemental Environmental Impact Statement*, Volume IA, Chapter 1, page 1-5) within Yosemite Valley to restore, protect, and enhance the resources of Yosemite Valley, provide opportunities for high-quality, resource-based visitor experiences, reduce traffic congestion and provide effective park operations to meet the mission of the National Park Service. There are no

[3] As approved by the *Final Yosemite Valley Plan/Supplemental Environmental Impact Statement* Record of Decision and as presented and analyzed in the *Final Yosemite Valley Plan/Supplemental Environmental Impact Statement*.

alternatives to the proposed action that would be located outside the floodplain or wetland and aquatic habitat of the Merced River.

New Development

The proposed action would develop new utility routings as required for the new building sites and develop new roadways, parking areas and trails in or adjacent to riverine intermittent streambeds.

Realignment of Northside Drive and new parking areas are the only new development proposed in the floodplain.

Existing Development

Existing structures include four motel-type buildings (Maple, Alder, Hemlock, and Juniper) an employee Wellness Center, Yosemite Lodge housekeeping facilities, several small structures near Tamarack Cottage, a section of Northside Drive west of Yosemite Creek Bridge, Yosemite Creek Bridge and Yosemite Creek Pedestrian/Bicycle Bridge, Yosemite Lodge roadways, and utilities. Utilities within the 100-year floodplain include three groundwater wells that provide drinking water in the Valley, the Yosemite Creek wastewater lift station, and sewer, water, and electric lines.

Revetments (riprap and similar reinforcements) were installed along the banks of Yosemite Creek and the Merced River in attempts to limit erosion and the lateral migration of the stream channels. A diversion dam located near the confluence of Yosemite Creek and the Merced River restricts flow across the Merced River floodplain. It was designed to divert high flood flows through an overflow channel and away from guest lodging units in the lower portion of the Yosemite Lodge Area Redevelopment site.

Redevelopment

The Yosemite Lodge Area Redevelopment proposes:

- Replacing the overnight accommodations at Yosemite Lodge that were lost during the 1997 flood, and removing the continued presence of some lodging units within the 100-year floodplain
- Providing a national park lodge experience at Yosemite Lodge instead of the existing motel-type experience. The National Park Service would modify the character of Yosemite Lodge to one more connected to a national park lodge experience and Yosemite Valley
- Replacing some of the campsites in Yosemite Valley that were lost in the 1997 flood
- Reducing traffic congestion on Northside Drive in the vicinity of Yosemite Lodge and Yosemite Falls, and improving the hazardous conditions for pedestrians and bicyclists crossing Northside Drive between the Lodge and Yosemite Falls
- Providing a traditional tribal presence in Yosemite Valley
- Structures that would be located in the floodplain include realigned Northside Drive, registration parking lot, a multi-use paved trail, lodge parking and roadways, overnight bus parking, and the sewage lift station.

Conclusion

Overall, the proposed action would have a beneficial impact to the floodplain and wetlands. The semipervious area would be reduced to less than 1% under the proposed action. The proposed action would improve the conditions of the 100-year floodplain by removing the major flow impediments, including guest lodging and maintenance buildings. The proposed action would restore overland flow across the Merced River floodplain, eradicate non-native plants, and re-establish natural riparian habitat on the floodplain. The beneficial effects associated with restoration and revegetation under the proposed action would offset the adverse construction-related impacts. Construction activities associated with the proposed action including installation and removal of utilities and development of project facilities would have minor, adverse impacts due to disturbance of 0.43 acre of wetlands (i.e., riverine intermittent streambed). With implementation of Best Management Practices and mitigation measures (including spill prevention and pollution control program, utilization of wetland protection and compensation measures such as installing protective fencing material to protect wetlands from construction activities, using silt fencing to reduce erosion, etc.), construction impacts to wetlands would be lessened.

Separate permits from other federal and cooperating state and local agencies would be obtained as appropriate prior to construction activities. Mitigation and compliance with regulations and policies to prevent impacts to water quality, floodplain function and values, wetland function and values, and loss of property or human life would be strictly adhered to during and after project construction.

The National Park Service has determined that there is no practicable alternative that would be located outside the floodplain or wetland habitat. Although there are slight differences in the extent of wetland disturbance between the proposed action and Alternative 3, the proposed action was selected over Alternative 3 because of the preferred visitor experience elements associated with the proposed action, including the layout of lodging units and guest parking, the size and number of viewing plazas at the Lodge, the location and size of the Lodge outdoor amphitheater, and the provision of a climbing display building and cooking pavilion at Camp 4.

No long-term adverse impacts to floodplains or wetlands would occur from the proposed action. Impacts to disturbed wetlands would be compensated at a minimum of 1-acre for 1-acre basis as part of the proposed project restoration actions. Restoration and revegetation under the proposed action would offset the adverse construction-related impacts and improve the connectivity, integrity, and value of the floodplain and its associated wetlands in the project area. The proposed action would result in a net gain of restored wetland area and functional value. Therefore, the National Park Service finds the proposed action to be consistent with Director's Order 77-1, including the no net loss wetland policy, and Director's Order 77-2.

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February 2004

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